PROSPECTING AND GEOCHEMICAL REPORT

on the

HAWK GROUP

(Hawk 1-5 mineral claims)

Clinton Mining Division

NTS 92P\15W

LAT. 51' 52" N

LONG. 120' 56" W

BY

D. RIDLEY (owner)

and

D. DUNN

PIONEER METALS CORPORATION (operator)

JANUARY, 1994

WORK APPROVAL NUMBER: PRG-1993-1000766-4-5682

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SUMMARY

The Hawk property is situated approximately 50 kilometers northeast of 100 Mile House, B.C., and is easily accessible via paved and gravel roads with a short, private, four-wheel drive road providing access to the center of the property. The claims straddle the contact zone between upper Triassic Nicola Group volcanics, volcaniclastics, and sediments, to the east, and coeval intrusives of the Takomkane batholith to the west.

During the late 1960's and early 1970's limited work was carried out on two copper-gold bearing quartz vein systems; the Hilda and Jens(?) showings. Although physical work consisted of blasting trenches and rock sampling, no work was ever recorded for these showings and they are not currently included in the provincial MINFILE data base.

In 1978, Alf Robinson discovered bornite-chalcopyrite bearing, epidote altered volcanic breccia that locally contained up to 3 oz\ton gold and 25% copper, at the "Knob" showing and staked the Clay property which adjoins the Hawk to the north. During the mid 1980's Noranda optioned the Clay property and conducted soil geochemistry, geological mapping, geophysical surveys, machine trenching and drilled four diamond drill holes on and around the "Knob" showing. In 1990 the property was optioned by Princeton Mining who extended the Noranda soil grid to the north and south on to the present Hawk property. By 1993 the Clay property had been reduced to eight units centered on the Knob showing and the Hawk property was staked to cover the southern extent of copper soil anomalies defined by the previous operators.

In June 1993, the claims were optioned to Pioneer Metals Corp., who initiated a reconnaissance prospecting and soil sampling survey which is the subject of the following report. Further work is recommended in the form of detailed geological mapping, additional soil and rock sampling, and ground magnetometer surveys. Targets may include a copper-gold porphyry system, gold-bearing propylitic-altered zones in limey volcanics, and copper (gold) skarn mineralization.

INTRODUCTION

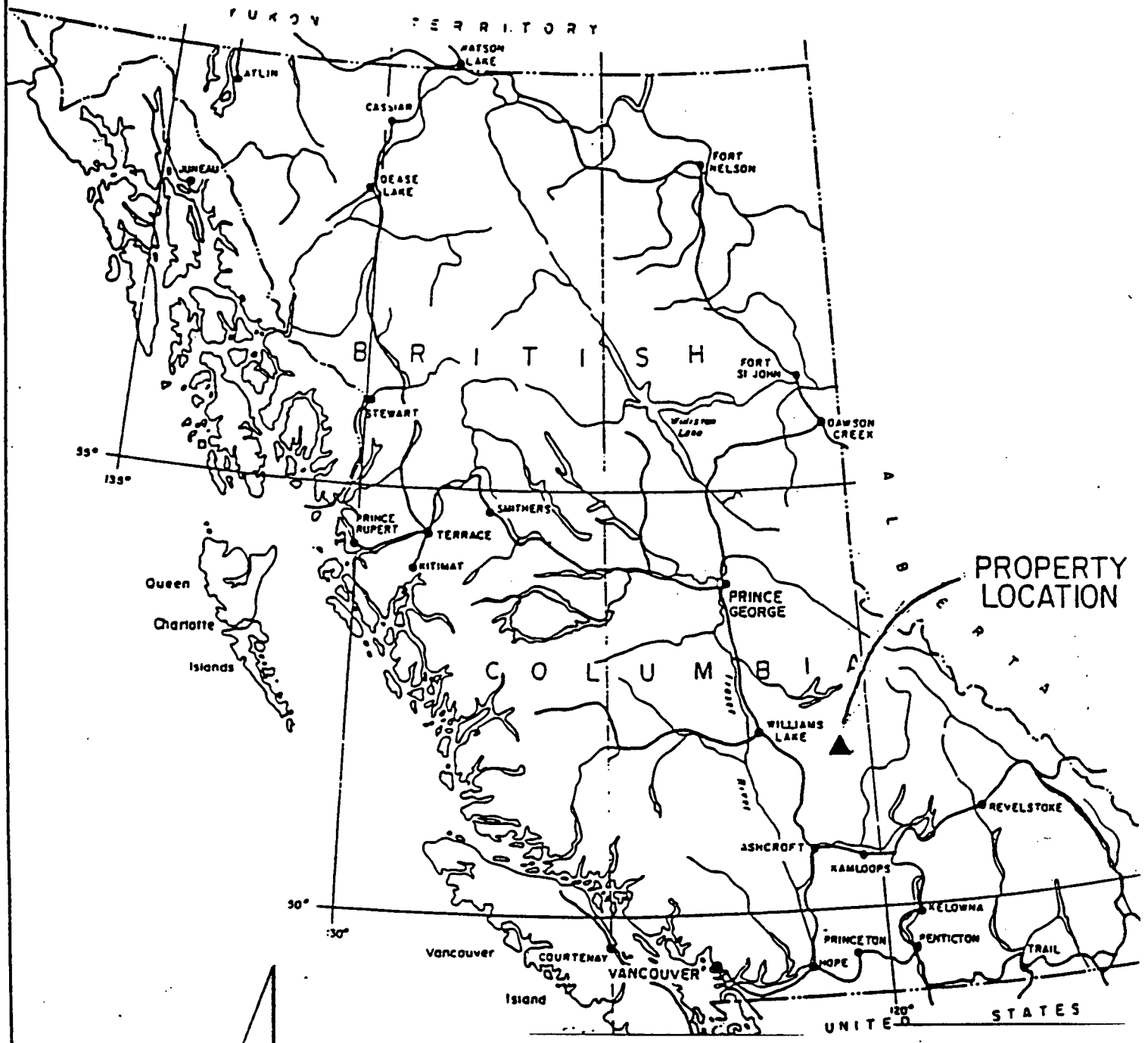
During the 1993 field season the Hawk property was subjected to prospecting traverses and a soil sampling survey. Several of the mineralized and\or anomalous zones defined by past operators were prospected and rock sampled. The soil grid is a southern extension of previous surveys. The Hilda showings were re-located and sampled. Several minor copper showings were encountered on the grid and around the property.

LOCATION AND ACCESS

The Hawk property is located approximately 50 kilometers northeast of 100 Mile House, BC and is accessible by paved, gravel and four-wheel-drive roads. Access from highway 97 is via the Canim Lake road to Eagle Creek, thence via the Ruth Lake road to Hawkins Lake. A rough road leaves the main road at Alf Robinson's house and permission must be obtained before use. Near the top of the hill an auxiliary ATV trail leaves the road and continues to the west winding down the hillside to Camper Lake and thence on to Middle and Third lakes.

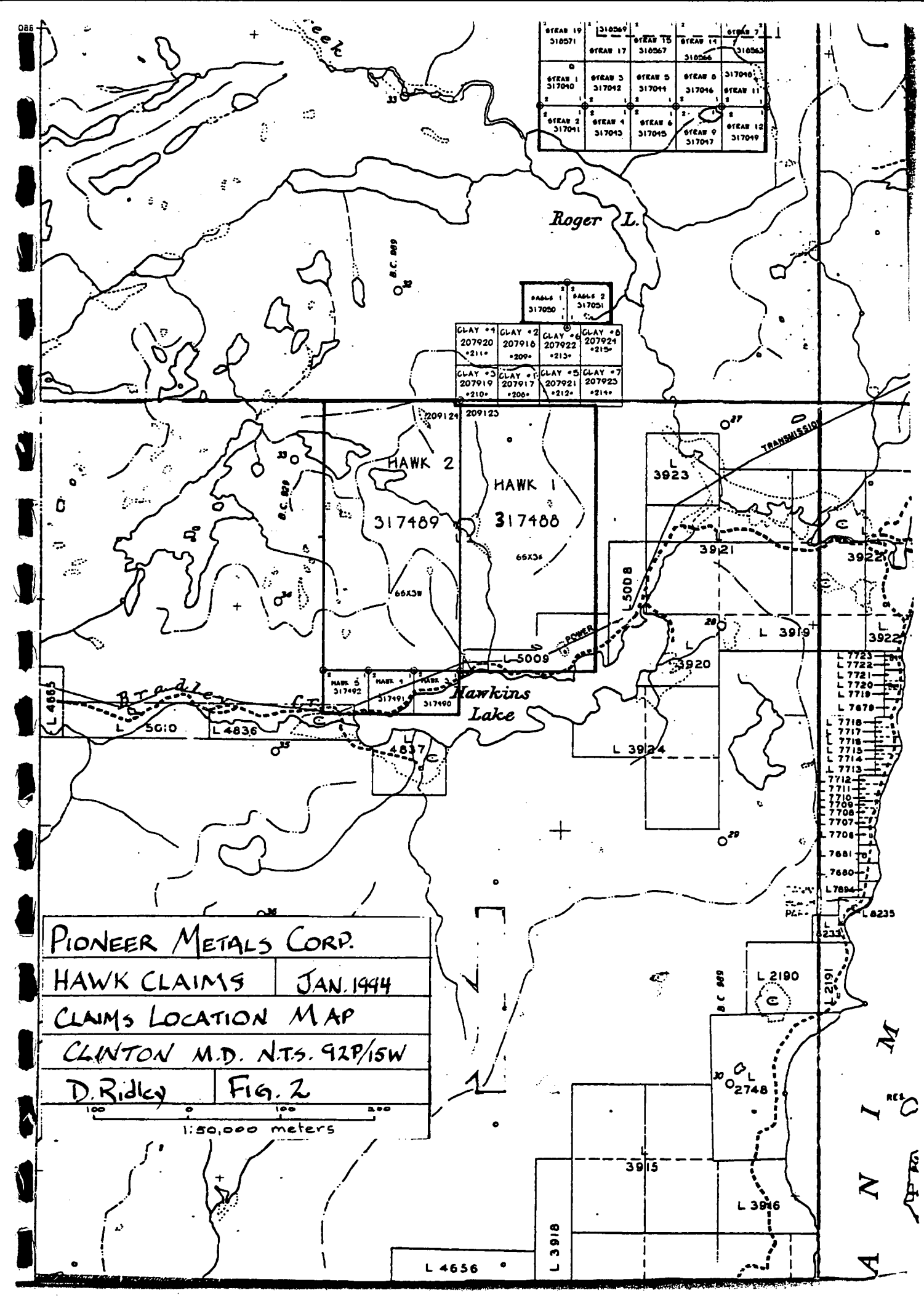
The claims lie at the transition between the Interior Wet and Dry Belt bioclimatic zones and within Quesnel Highlands physiographic region. They lie between 2600 and 3600 feet elevation. Topography ranges from a gently undulating plateau with several low-lying swampy areas near the center of the claims, to fairly steep slopes rising above Hawkins Lake.

The property is densely forested with a mixture of juvenile and mature timber stands. The mature stands consist of Douglas Fir, Lodgepole Pine with Spruce and Cedar in swampy areas. Logging took place on the southern portion of the claims which cover private property, this fall. It did not affect access in any way. In the vicinity of the lakes swampy areas of juvenile cedar, buckbrush and willow impede progress somewhat.



PIONEER METALS CORP.	
HAWK CLAIMS	Jan. 1994
GENERAL LOCATION MAP	
CLINTON M.D. N.T.S. 92P/15W	
D. Ridley	FIG. 1

0 100 200 miles
0 100 200 300 Kilometers


Roger L.
HAWK 2
317489
HAWK 1
317488
Hawkins Lake
L 5009
L 5008
L 4836
L 4837
L 4656
L 3923
3921
3922
L 3919
3920
L 3924
3915
L 3916
L 3918
L 2748
L 2190
L 2191
L 8235
TRANSMISSIO
POWER
PIONEER METALS CORP.
HAWK CLAIMS | JAN. 1994
CLAIMS LOCATION MAP
CLINTON M.D. N.T.S. 92P/15W
D. Ridley | FIG. 2
1:50,000 meters

CLAIM STATUS

The Hawk property consists of two modified grid and three two-post claims situated in the Clinton Mining Division. The claims were staked in April 1993 by D. and C. Ridley. They are held by Dave Ridley, General Delivery, Eagle Creek, BC V0K 1L0. In June 1993 an option agreement was signed with Pioneer Metals Corporation, which has corporate offices at 1770-401 West Georgia Street, Vancouver, BC, V6B 5A1. Pioneer has the right to earn a 100% interest in the property subject to a 2% NSR retained by Ridley. Pertinent claim data is listed below.

Claim Name	Record No.	Date Staked	*Expiry Date*
Hawk 1	317488	Apr. 28, 1993	Apr. 28, 1997
Hawk 2	317489	Apr. 28, 1993	Apr. 28, 1997
Hawk 3	317490	Apr. 27, 1993	Apr. 27, 1997
Hawk 4	317491	Apr. 27, 1993	Apr. 27, 1997
Hawk 5	317492	Apr. 27, 1993	Apr. 27, 1997

* Pending assessment report approval*

PROPERTY HISTORY

Although active exploration was carried out in the region during the 1960's no work was recorded for the area surrounding the present claims until the late 1970's.

In 1978, the Clay property, adjoining the Hawk ground to the North, was staked by Alfred Robinson to cover outcroppings of bornite-chalcopyrite bearing , epidote-altered volcanic breccia. Limited exploration continued until 1982 when Alcare Resources Inc. did EM and magnetometer surveys of the "Knob" showing and drilled 11 BQ diamond drill holes totaling 424 meters on and around the showing. Very few mineralized zones were intersected in the drilling. In 1984 and 1985 Noranda Exploration Co. Inc. optioned the ground, expanded the land position, and conducted soil sampling, detailed geological mapping, trenching, magnetometer and I.P. surveys, and drilled four diamond drill holes totaling 397 meters.

This work defined several copper soil anomalies and two main I.P. anomalies, one of which is the Knob showing. The drilling partially tested both I.P. anomalies. The best assay was a 19.66 meter intersection of epidote alteration which returned 0.12% copper, 0.06 oz/ton silver, and 0.007 oz/ton gold. Within this section, a 4.5 meter section assayed 0.27% copper, 0.13 oz/ton silver, and 0.013 oz/ton gold (Gale R.E., 1988). A subcropping rock sample from Trench 3, 800 meters north-northeast of the Knob showing, returned 1300 ppb gold and 1.2% copper (Lewis T.D., Bradish L., 1985). This trench crosscuts a portion of a linear copper soil anomaly up to 1.2 kilometers long and originating near the Knob showing.

The Clay (Hawkins Lake) property was modeled after Dome's QR deposit in that it "was situated within Triassic volcanics of the Quesnel Trough, the gold mineralizing event is associated with a comagmatic monzonite (?) stock, gold-sulphide mineralization is within a zone of propyllitic alteration, and gold-sulphide mineralization was deposited in a calcareous environment: calcareous tuff (QR); limestone-volcanic contact (Hawkins)" (Lewis, T.D., Bradish, L., 1985).

In 1990 Princeton Mining Corp. optioned the Clay (Hawkins) property, extended Noranda's grid, and conducted soil sampling and geological mapping. This work defined the northerly limits of the copper soil anomalies (Bishop, S.T., 1990). No further work has been recorded for the Clay (Hawkins) property and by 1993 it had been reduced to the present eight two-post mineral claims centered on the Knob showing.

REGIONAL GEOLOGY

The Hawk property lies in the Quesnel Trough, a subdivision of the Intermontane belt, which is composed of Triassic to Jurassic volcanic, volcaniclastic, and sedimentary rocks which are intruded by various plutons ranging in age from Triassic to Cretaceous.

The oldest rocks in the region comprise augite andesite-basaltic flows, breccias and agglomerate, tuff, argillite, phyllite, greywacke, and black to grey limestone of the Triassic

FIG. 3

TERTIARY OR QUATERNARY

Miocene and/or Pliocene

25 Plateau lava, olivine basalt andesite, related ash and breccia beds; basaltic arenite; 25a, olivine gabbro plugs

EOCENE AND (?) OLIGOCENE

Kamloops Group (21, 22)

22 Skull Hill Formation; dacite, trachyte, basalt, andesite, rhyolite, related breccias

CRETACEOUS

20 Raft and Baldy Batholiths and Similar Granitic Rocks; biotite quartz monzonite and granodiorite; minor pegmatite, aplite, biotite-hornblende, quartz monzonite; 20a, quartz diorite, diorite, granodiorite (may include some older rocks); 20b, aplite, leuco-quartz monzonite and granite

JURASSIC

Sinemurian to (?) Middle Jurassic

16 Porphyritic augite andesite breccia and conglomerate; minor andesite, arenite, tuff, argillite and flows (may include some 11; 16a, isolated areas of hornblende andesite (may be all or partly intrusive)

15 Andesitic arenite, siltstone, grit, breccia and tuff; local granite bearing conglomerate, greywacke; minor argillite and flows (may include some 11)

Rhaetian or Hettangian

Thuya and Takomkane Batholiths and Similar Granitic Rocks

14 Hornblende-biotite quartz diorite and granodiorite, minor hornblende diorite, monzonite, gabbro, hornblendite; 14a, diorite and granodiorite; 14b, leuco-quartz monzonite and granodiorite

13 13a, fine- to medium-grained, pink to brown and grey syenite and monzonite; 13b, medium-grained, creamy-buff, locally coarsely porphyritic (k-feldspar) syenite and monzonite

TRIASSIC

Karnian and Norian

Nicola Group

11 Augite andesite flows and breccia, tuff, argillite, greywacke, grey limestone; 11a, includes minor 9 and 10

10 Black shale, argillite, phyllite, siltstone, black limestone

MISSISSIPPIAN AND/OR LATER

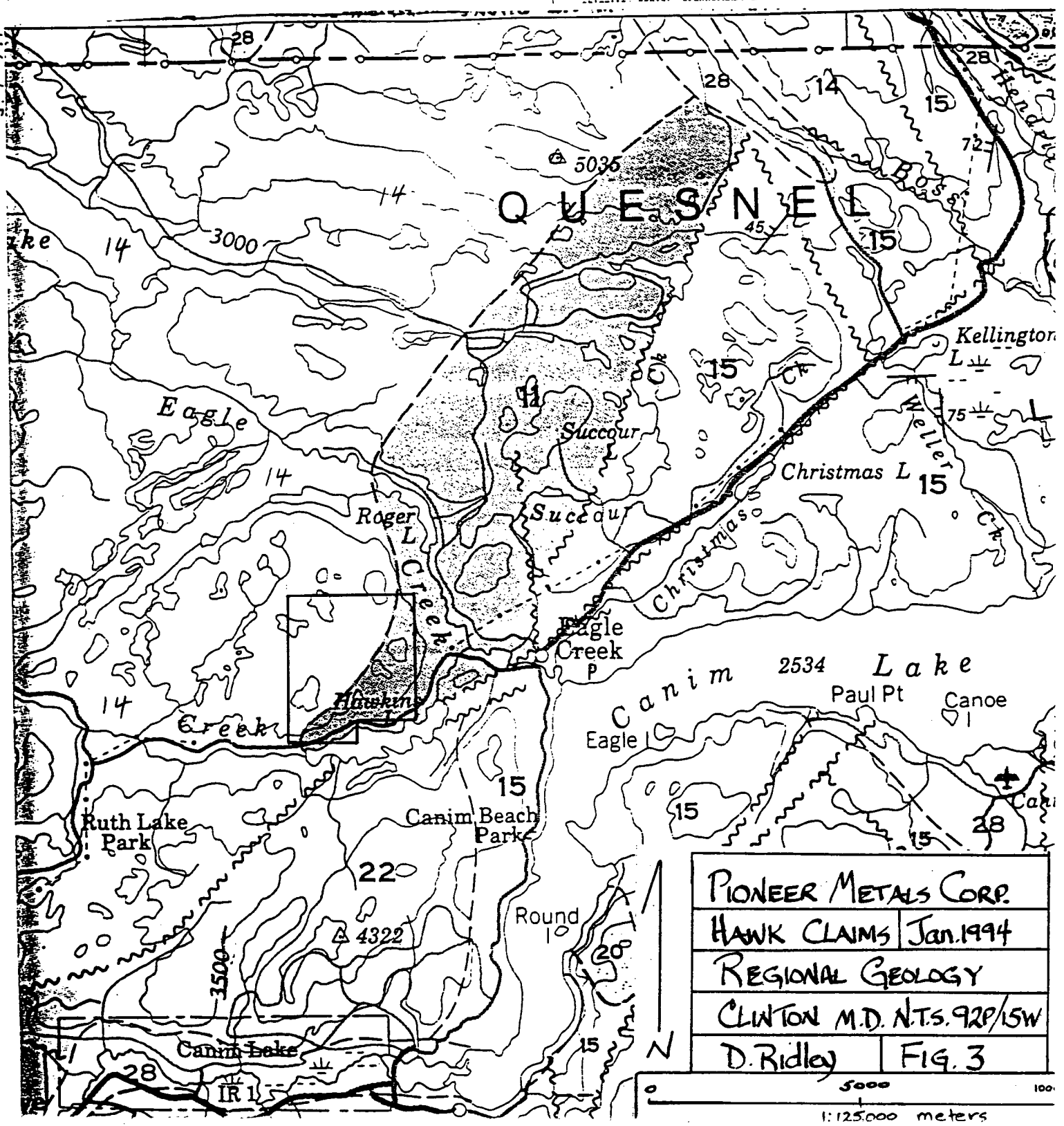
Slide Mountain Group

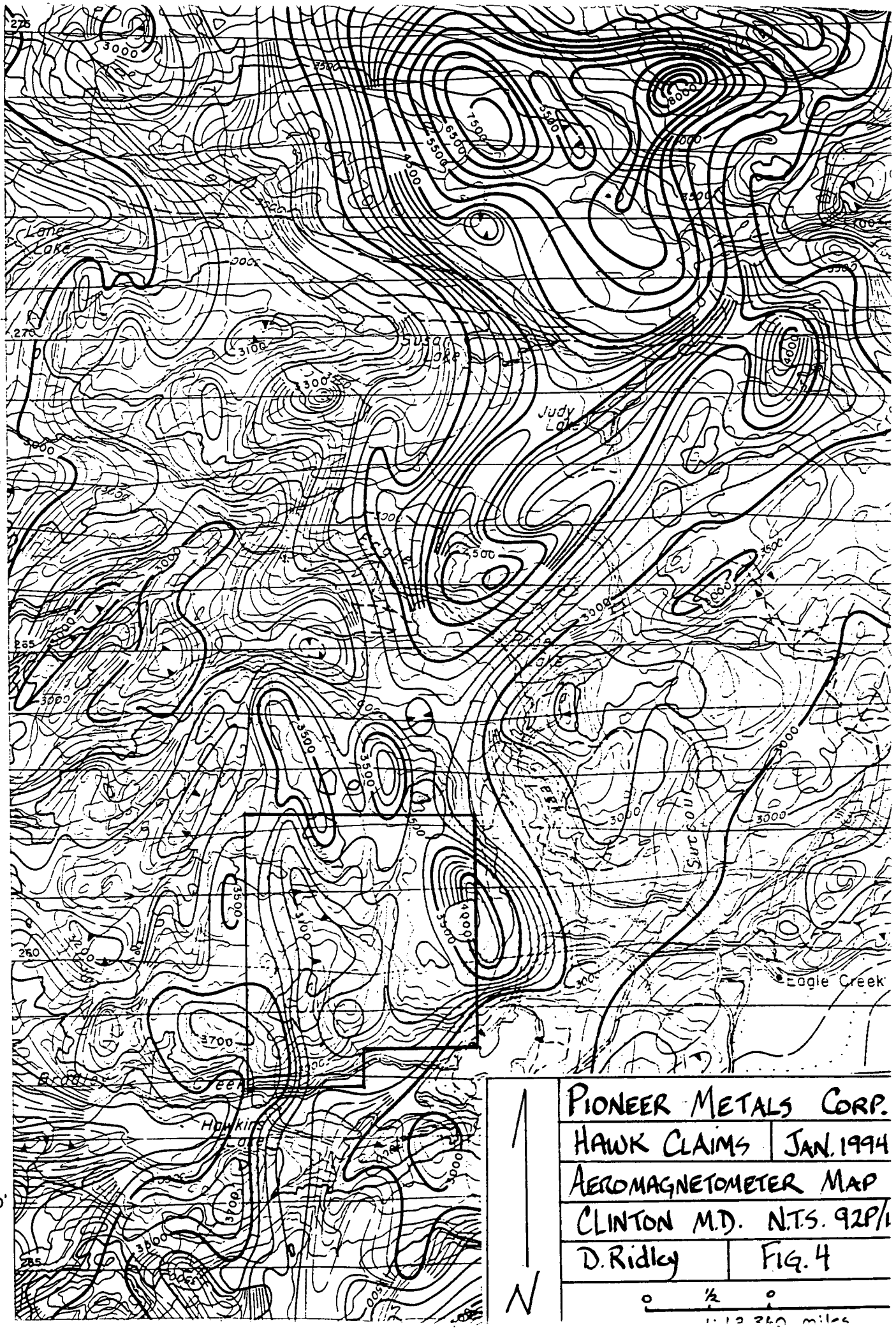
? Fennell Formation; pillow lava flows, greenstone, foliated greenstone, greenschist, argillite, chert, minor amphibolite, limestone, breccia

WINDERMERE OR CARIBOO AND LATER

Kaza or Cariboo Group

1 Feldspathic quartz-mica schist, locally garnetiferous, micaceous quartzite, black siliceous phyllite, quartz-hornblende-mica schist, marble, [illegible]




Lone Lake
Judy Lake
Eagle Creek
Hawkins Lake
Joins Map 5232G, Lac La Hache
55'
50'
N
PIONEER METALS CORP.
HAWK CLAIMS
JAN. 1994
AEROMAGNETOMETER MAP
CLINTON M.D. N.T.S. 92P/1
D. Ridley
FIG. 4
0 ½ 0
1:12,340 miles

Nicola Group which is intruded by the upper Triassic-Jurassic Takomkane batholith. The Takomkane batholith is a composite granodiorite intrusion with hornblende-biotite quartz diorite and granodiorite, hornblende diorite, monzonite, gabbro and hornblendite. Phases may be syenodiorite-diorite or quartz monzonite in composition and locally K-feldspar porphyritic, and quartz-rich (Blann, 1993).

A large magnetic high shown on Figure 4, stretching from Roger Lake in the south to north of Iron Lake and roughly outlined by the 3500 relative gamma contour, was found to be underlain by magnetite-rich, locally porphyritic, hornblendite, pyroxenite, gabbro and diorite. It is not clear whether this represents a border phase of Takomkane batholith or the emplacement of a younger, more mafic intrusion, along its margin.

Jurassic rocks comprise andesitic arenite, siltstone, grit, breccia and tuff, local granite-bearing conglomerate, greywacke, minor argillite and flows. These rocks are in apparent fault contact with all other rocks in the area (Campbell, Tipper, 1971). Jurassic and older rocks are intruded by several satellite stocks and smaller bodies, consisting of biotite-quartz monzonite and granodiorite of Cretaceous age. Three small stocks on the east side of Canim Lake believed to be Cretaceous in age, are syenite, syenodiorite to diorite and gabbro in composition.

South of Canim and Hawkins Lakes, dacite, trachyte, basalt, andesite, rhyolite, and related breccias of the Eocene to Oligocene Skull Hill formation form the higher hills. Miocene and/or Pliocene plateau lava, olivine basalt, basaltic andesite, and related ash and breccia beds of the Chilcotin Group are found in the lower lying areas and form extensive exposures on the Fraser plateau, immediately west of the property.

1993 WORK PROGRAM

The 1993 work program consisted of prospecting and soil sampling where the 1990 grid was extended to the south. The work was conducted by D. and C. Ridley under the

supervision of D. Dunn, geologist for Pioneer Metals Corporation, and was carried out between August 4-8, 17-19, September 13, and November 4-5, 1993. The program resulted in the collection and subsequent analysis of 340 soil, 14 rock, and 2 silt samples.

PROSPECTING AND ROCK SAMPLING

Outcrop on the Hawk property is best exposed along the hill rising above Hawkins Lake. Elsewhere, exposure is generally less than 15% with most outcroppings found on hill and ridgetops rising above the flatter plateau. A thick mantle of moss and lichens with little or no soil development is all that covers large areas of the ridge and hill tops. In the more heavily overburdened areas, zones of angular float which are generally of uniform composition may be presumed to be rubble and\or subcrop accumulating from weathering of underlying bedrock, and so, may aid in geological mapping.

Prospecting traverses were run in areas of anomalous soil geochemistry, alteration and\or mineralization defined by past operators. In addition, several reconnaissance prospecting traverses were run in areas which contain no past work in order to assess the overall potential of the property. Rock sample locations are shown on Figure 5, sample description and analysis certificates are included in the appendix.

A 75 cms. wide quartz vein with minor bornite along the fractures was discovered in 1990 by S.T. Bishop during geological mapping and soil sampling. The vein is situated at L 41+60N;50+10E and trends 010\90. A grab sample from the vein returned 255 ppb gold, 1.2 ppm silver, and 1400 ppm copper (HAWK93 DR4). A chip sample 2.5 meters wide of epidote-altered augite andesite wallrocks containing trace pyrite and chalcopyrite returned 35 ppb gold and 166 ppm copper (HAWK93 DR5). The quartz vein was not traced for any appreciable length and of itself does not pose a viable exploration target.

A shear zone one meter wide located near L43N;47+75E, containing epidote-quartz veinlets with minor chalcopyrite and malachite stain in fine grained diorite (?) returned values of 405 ppb gold, 0.4 ppm silver, and 2204 ppm copper (HAWK93 DR6).

Soil sampling in this area has outlined a copper anomaly 300x50 meters in size, extending southerly from the DR6 sample site. The shear zone trends 060\80S and as such does not explain the southerly trending soil anomaly.

The 1993 grid was prospected during soil sampling and only a few outcrops were encountered. Most were fine grained diorite with variable degrees of propylitic alteration. No mineralization was noted. The southern portion of the grid appears to be underlain by variably chlorite-epidote-quartz-carbonate-K-spar altered granodiorite to diorite. The diorite is commonly magnetite or hematite-rich and may carry trace chalcopyrite. A narrow quartz vein, 5 cms. wide, containing trace malachite and minor pyrite-chalcopyrite-hematite, located at L28N;51+25E, returned 5 ppb gold, 2.4 ppm silver, and 1977 ppm copper (HAWK93 CR1). The vein trends 360\82W. A soil sample from this site was not anomalous in copper.

Several angular chunks of skarn (calcite-epidote-garnet) float were found along the east shore of First Lake. A sample returned 10 ppb gold, 201 ppm copper (HAWK93 DR3). Prospecting upslope failed to locate its source although a zone of angular float consisting of magnetite-rich porphyritic hornblendite was found.

Two samples were collected from large angular float boulders situated along the access road to the Clay property. This material consisted of volcanic breccia with up to 7% disseminated pyrite and trace chalcopyrite (HAWK93 DR12,13). No anomalous values were detected.

The old "Hilda" showings were re-located and four rock samples were taken from material exposed in three trenches blasted into bedrock. The showings were discovered in the early 1970's by Alf Robinson who stated he had obtained assays of up to 2-3% copper and 0.25 oz\ton gold from narrow quartz veins on the surface. Sampling in 1993 failed to reproduce the high copper-gold values. The showings consist of several intersecting shear zones with narrow quartz and quartz-carbonate veins that locally contain up to 2% chalcopyrite-pyrite and minor bornite. The veins are typically less than 15 cms in width and the best mineralization occurs near the intersection of two of the shear zones which trend 025\40W and 160\60E.

A chip sample across a 2.5 meter wide section of chlorite altered augite porphyry with a quartz-carbonate stockwork

containing minor pyrite and trace chalcopyrite returned <5 ppb gold and 67 ppm copper (HAWK93 DR14). A grab from a 50 cms. wide shear with quartz-carbonate alteration and carrying minor chalcopyrite returned 10 ppb gold and 73 ppm copper (HAWK93 DR15). A grab sample from material lying on the trench dump consisting of quartz veins with up to 3% disseminated chalcopyrite-pyrite and minor bornite returned 215 ppb gold, 6.6 ppm silver, and 6959 ppm copper (HAWK93 DR16). A sample across a one meter wide shear zone containing up to 0.5% chalcopyrite returned 15 ppb gold and 421 ppm copper (HAWK93 DR17). Additional prospecting and rock sampling is warranted for this area.

A large angular float boulder consisting of a completely epidotized rock containing quartz-carbonate alteration and K-spar veinlets with disseminated bornite was found along the main road beside Hawkin's Lake. A smaller piece of similar float was found upslope of the hydro line and poorly exposed outcrop of epidote-quartz-carbonate-K-spar altered, but un-mineralized rock, was found further upslope. A sample returned 450 ppb gold and 2700 ppm copper. This sample was obtained prior to staking the claims and the analysis certificate is not available. Additional prospecting traverses are warranted for this area.

SOIL GEOCHEMISTRY

A total of 340 soil samples were collected on the Hawk property during the 1993 work program. These were obtained on a grid which was a southern extension of previous soil surveys. Samples were dug by hand with a mattock, placed in Kraft soil envelopes and air dried one week prior to shipment to Eco-Tech Labortories Ltd., Kamloops. Samples were seived to -80 mesh, one gram was analyzed for 30 elements by ICP and ten grams were fire assayed and analyzed by atomic absorption for gold. Sample results are included in the appendix. Gold-copper results are plotted on Figure 6.

Soil development was good over most of the grid area with local areas of poorer development in or near the lower lying swampy ground. Samples were taken from 15-25 cms depths and consisted of light orange-brown "BF" horizon. Numerous angular rock fragments from the soil holes and surrounding area

correlate well to observed outcrops and so only limited lateral displacement of soil anomalies is suspected.

Gold values were poor with almost all being below the detection limit. A couple of samples were in the 5-10 ppb gold range and do not form any anomalous zones. Copper values range between 3-1667 ppm with 70 ppm considered anomalous and +150 ppm highly anomalous. Several copper anomalies have been detected on the grid and are discussed below.

Several anomalous copper values were obtained on Line 41N. The first set, found at stations 43E and 43+25E, returned values of 248-253 ppm copper. Examination of the area failed to reveal an obvious source for these values, which were taken from a well developed residual soil. A second anomaly is located at 45+75E, extending south to L40N;46E and 46+25E. Copper values range between 75-346 ppm. Although examination failed to indicate the source of this anomaly outcrops of fine grained diorite with very strong propylitic alteration were noted between the samples (FIG. 5). A third anomaly was found between 47+75 and 48E, on Line 41N. Copper values are between 71-92 ppm and this anomaly appears to extend northward for 300 meters, as indicated by Bishop (1990). An outcrop containing a one meter wide shear zone that returned values of 405 ppb gold and 2204 ppm copper was found near the northern end of this anomaly (HAWK93 DR6).

A narrow low-order anomaly was found near the baseline between L39N;49+50E and L38N;49+50N. Copper values are between 71-157 ppm. No explanation was found for this anomaly. A spot anomaly, located on L38N at 47+25E and 47+50E, returned values between 75-116 ppm copper. A narrow copper soil anomaly is located between L38N;46+50E and L36N;45+75E. The anomaly is open to the south where it enters Middle lake.

A significant copper soil anomaly was found in the southern portion of the grid between L31N;49+75E and L30N; 49+25E to 49+75E. Copper values range between 398-1667 ppm. A small tightly spaced mini-grid was established over the area and subsequently soil sampled. The anomaly was not found to extend beyond the previously defined zone. Examination of this area failed to locate a source for this anomaly which is overlain by a thick blanket of residual soil.

Three anomalous zones are found on Line 26N. This is the last line sampled and additional sampling is required to determine whether these extend beyond the grid to the south.

The first occurs at L26N;48+75E and returned 93 ppm copper. The second lies between 50+25E and 50+50E and returned values between 102-162 ppm copper. A third spot anomaly occurs at L26N;51+25E and returned a value of 100 ppm copper. Soils in the southern portion of the grid are generally well developed and of residual origin. The ground rises to the south and it is possible that the anomalies have been transported downslope. Additional soil sampling is warranted in this area.

CONCLUSIONS

Based on a compilation of past data and results obtained during the 1993 work program it can be concluded that the Hawk property has good potential to host copper-gold mineralization similar to that found at the Knob showing immediately north of the claims. This is based on a generally favourable geological environment, widely scattered, low-grade mineralized outcrops and angular float, some of which are roughly co-incident with copper soil anomalies. In addition, some potential may exist for a blind, alkalic porphyry system at depth.

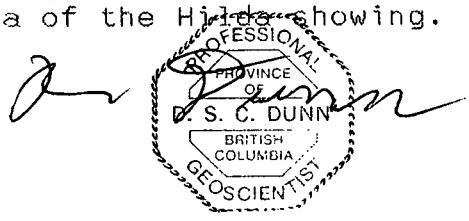
Although soil sampling failed to detect anomalous gold values it should be pointed out that soil sampling, by past operators around the Knob showing, also failed to detect significant gold in soils even though the underlying bedrock was found to contain greater than 1500 ppb gold (Bishop, 1990).

An aeromagnetometer low occurring in the vicinity of Middle and Third lakes was found to be underlain by hematite-rich diorite. The outcrops are variably altered by chlorite, epidote, carbonate, quartz, K-feldspar, and contain disseminated hematite rather than the magnetite found elsewhere.
It is not clear whether this represents an alteration feature or is the result of different chemical constituents in the magma at the time of consolidation, and so, of primary origin.

RECOMMENDATIONS

Further work on the Hawk property is recommended in the form of detailed geological mapping, rock sampling, ground magnetometer and VLF-EM surveys of the 1993 grid and extending to the northern claim boundary utilizing the 1990 grid. This work would be targeted at defining the cause of the copper soil anomalies found here. If results from the initial phase proved successful back hoe trenching or diamond drilling would follow. Additional soil sampling, geological mapping and prospecting should be carried out to the south of the 1993 grid to determine the southern extension, if any, of the copper anomalies on Line 26N.

The remainder of the property should be subjected to reconnaissance geological mapping and prospecting, particularily along the slopes rising above Hawkins Lake. Contour soil sampling lines may aid in prospecting portions of the slopes that are covered by overburden. Detailed geological mapping and rock sampling should be conducted in the area of the Hilda showing.



STATEMENT OF QUALIFICATIONS

I, David Wayne Ridley, of General Delivery, Eagle Creek, B.C., V0K1L0, do hereby certify:

1) That I completed the "Mineral Exploration for Prospectors" course, hosted by the BC Ministry of Mines at Mesachie Lake, B.C. in 1984.

2) That I completed the short course entitled "Petrology for Prospectors" held in Smithers, B.C., and hosted by the Smithers Exploration Group, in 1990.

3) That I have prospected independently since 1982 and have been employed as a prospector by various exploration companies in B.C., Alaska, and Yukon Territory since 1984.

4) That I conducted the work set out in this report while under the supervision of D. Dunn.

5) That I currently own an interest in the subject property.

Dated at Eagle Creek, B.C., Jan. 15/94

David Wayne Ridley

I, David St. Clair Dunn, with a business address of 2348 Palmerston Avenue, West Vancouver, B.C. V7V 2W1, declare that;

1. I am a professional Geoscientist registered under the Professional Engineers and Geoscientists Act of the Province of British Columbia.

2. I am a Fellow of the Geological Association of Canada.

3. I am a Fellow of the Association of Exploration Geochemists.

4. I have practiced my profession as a prospector and geologist for more than 20 years in Canada, U.S.A. and Australia.

5. I supervised the work program on the Hawk Property described in this report.

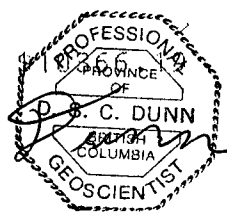
6. I am Exploration Manager for Pioneer Metals Corporation.

PROFESSIONAL ENGINEERS AND GEOSCIENTISTS ACT PROVINCE OF BRITISH COLUMBIA GEOSCIENTIST

David St. Clair Dunn, P.Geo.

FINANCIAL STATEMENT

PERSONEL:		
C. Ridley, prospector;	9D @ $125\day	$ 1125.00
D. Ridley, prospector;	7D @ $200\day	$ 1400.00
D. Dunn, geologist;	3D @ $250\day	$ 750.00
TRAVEL:		
A.T.C. Rental;	9D @ $40\day	$ 360.00
Gas;		$ 20.00
GST PAYABLE:		
7% on contracting and vehicle rental		$ 296.45
FOOD AND ACCOMODATION:		
Minac Lodge, Canim Lake;	3D @ $50\day	$ 150.00
SAMPLE ANALYSIS:		
i) Soils;	340 @ $15 each	$ 5100.00
ii) Rocks;	14 @ $16 each	$ 224.00
iii) Silts;	2 @ $15 each	$ 30.00
SHIPPING:		$ 57.87
FIELD SUPLIES:		$ 85.00
PHOTOCOPYING:		$ 52.87
FAX:		$ 15.00
REPORT PREPARATION:		$ 700.00
		==========
TOTAL EXPENDITURES FOR 1993 WORK PROGRAM:		$ 11366



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Lewis T.D., Bradish L., 1985; Geological, Geochemical and Geophysical Report on the Hawkins Lake-Alcare Resources Option; Private Report for Noranda Exploration Co. Inc.

APPENDIX "A"

Rock Description Sheets

ROCK SAMPLE SHEET

Sampler D. Ridley
Date August 1993

Property HAWK-EAGLE

NTS 92P/15

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS				
		Rock Type	Alteration	Mineralization		Au	Ag	Cu	Cr	
HAWK 93 DR1	F	skarn	epidote pink calcite K-spar garnet	trace pyrite magnetite	S. shore Deep L. (near where creek is supposed to flow in, but wasn't found to exist)	15	<.2	12	44	
HAWK 93 DR2	1m	volcanic breccia	carb + epidote veinlets	trace py-cpy?	N. shore Deep L. towards E. end: subcrop (probably outcrop?):	15	<.2	115	35	
HAWK 93 DR3	F	skarn	garnet · epidote calcite	minor py trace cpy	along E. edge Camper L. ≥ 20m above shoreline. much similar stuff lying about: prospecting upslope failed to find any outcrop.	10	<.2	201	115	
HAWK93 DR4	70cm	qtz vein	malachite	bornite along fractures	@ 50+10E: 41+60N: wallrx are augite porphyry with minor epidote	255	1.2	1400	190	
HAWK 93 DR5	2.5m	augite andesite	epidote	trace py + cpy	wallrx @ DR4:	35	<.2	166	32	
HAWK 93 DR6	1.5m	shear zone	epidote qtz veinlets bleaching	malachite minor cpy	10m S of L43N: 47+75E: zone trends 060/80S: in microdiorite.	405	.4	2204	44	
HAWK 93 DR7	F	augite porphyry	epidote veinlets	malachite on fractures	@ L58N: 51E: beside soil hole: float very angular probably close to source.	325	.6	3245	119	
HAWK 93 DR8	F	andesite	qtz - pink calcite veinlets	minor cpy malachite	≥ 20m upslope from DR7 across road: appears to be part of overgrown talus slope: similar float to DR7 seen here also.	5	<.2	204	256	
HAWK 93 DR9	F	augite porphyry	carb + epidote veinlets	trace cpy malachite	L54N: 51+75E: very angular float:	<5	<.2	321	106	
HAWK 93 DR10	F	"	"	hematite minor malachite on fractures	large angular float: very close to source: trench has been dug ≥ 10m E of sample site.	<5	<.2	191	166	
HAWK 93 DR11	F	altered volcanic	qtz carbonate	3% f-grain "tinny" pyrite	along road above Deep L.: very angular: dug up during road construction:	5	<.2	80	17	
HAWK 93 DR12	F	volcanic breccia	bleaching	up to 3% disem pyrite	along main road on Hawk claims: angular float	5	<.2	145	163	
HAWK 93 DR13	F	"	"	pyrite to 5-7%	5m S of DR12: breccia contains diorite clasts:	<5	<.2	310	59	
HAWK 93 DR14	2.5m	augite porphyry	qtz-carb stockwork chlorite	minor pyrite trace cpy	Hilda showing Trench 1: veins (qtz) to 1cm wide: trend 080/70N: filled fractures 360/80W	<5	<.2	67	87	
HAWK 93 DR15	50cm	shear zone	qtz-carb	minor cpy	Hilda showing Trench 2: cuts augite porphyry trends 025/40W	10	<.2	73	139	

[redacted]

ROCK SAMPLE SHEET

Sampler D. Ridley
Date Aug. 1993

Property HAWK- EAGLE

NTS

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS			
		Rock Type	Alteration	Mineralization		Au	Ag	Cu	Cr
HAWK 93 DR 16	G.	qtz veins	chlorite	up to 3% cpy minor bornite.	Hilda showing: Trench 3: "high grade" grab of best mineralization: from Trench dump: cpy weathered? to bornite	215	6.6	6959	172
HAWK 93 DR 17	1m	shear zone	qtz-carb chlorite	1% cpy overall local small high grade pockets	Hilda showing: Trench 3: back-center of trench: seems to trend 360/80W with higher grade material trending 160/60E: may connect @ depth to DR 15	15	<.2	421	235
HAWK 93 DR 18	F	grano-diorite	limonite	1% disem py	on road to Middle Lake ≈ 30m from BL50E: 31+50N:	5	<.2	100	85
HAWK 93 DR 19	F	diorite (gabbro)	epidote intrusive veinlets	1% disem py trace cpy	7m from DR18: intrusive veinlets 3-5mm wide similar to DR18 material. highly magnetic	<5	<.2	52	53
H									
HAWK 93 CR 1	grab 5cm.	Qtz. vein	chlorite epidote	trace malachite trace cpy scant py + hem tite	@ L28N: 51+25E - 360/82°W - wilrk chl/ep. alt. volcanic	5	2.4	1977	150
HAWK 93 CR2	grab	diorite	chlorite epidote	hematite trace py	- ± 10m. E of L29N: 48+50E - on rocky knoll: lots of OC - trend E/W vertical dip	5	<.2	65	73

C-CHIP G-GRAB F-FLOAT

APPENDIX "B"

Laboratory Procedures

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.

2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.

3. Heavy Mineral Separation:
Samples are screened to -20 mesh, washed and separated in Tetrabromothane. (SG 2.96)

METHODS OF ANALYSIS

All methods have either certified or in-house standards carried through entire procedure to ensure validity of results.

1. Multi-Element Cd, Cr, Co, Cu, Fe (acid soluble), Pb, Mn, Ni, Ag, Zn, Mo

Digestion	Finish
Hot aqua-regia	Atomic Absorption, background correction applied where appropriate

A) Multi-Element ICP

Digestion	Finish
Hot aqua-regia	ICP

2. Antimony

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

3. Arsenic

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

4. Barium

Digestion	Finish
Lithium Metaborate Fusion	I.C.P.

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13. Tin

Digestion	Finish
Ammonium Iodide Fusion	Hydride generation - A.A.S.

14. Tungsten

Digestion	Finish
Potassium Bisulphate Fusion	Colorimetric or I.C.P.

15. Gold

Digestion	Finish
a) Fire Assay Preconcentration followed by Aqua Regia	Atomic Absorption
b) 10g sample is roasted at 600°C then digested with hot Aqua Regia. The gold is extracted by MIBK and determined by A.A.	

16. Platinum, Palladium, Rhodium

Digestion	Finish
Fire Assay Preconcentration followed by Aqua Regia	Graphite Furnace - A.A.S.

ECO-TECH LABORATORIES LTD.
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LABORATORY METHOD ASSAYS

Gold	-	Coventional fire assay with A.A. finish
Gold "Metallics"	-	A 300g re-split is taken from the rejects and pulverized in a ring and puck pulverizer. The entire split is screened to -140mesh. The entire +140 mesh oversize is assayed separately. Two replicate assays are performed on the -140 mesh fraction.
Ag Pb Sb Zn	-	Aqua regia digestion, A.A. finish
As	-	Aqua regia digestion, ICP finish

APPENDIX "C"

Sample Analysis Certificates

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-475
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

NOVEMBER 24, 1993

PAGE 1

52 SOIL SAMPLES RECEIVED NOVEMBER 14, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 18

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	H L26N 48+ 50E	<5	<.2	3.30	<5	6	115	15	.43	<1	20	57	44	3.62	.11	<10	.87	421	<1	.01	28	840	<2	15	<20	36	.20	<10	101	<10	13	95
2 -	H L26N 48+ 75E	<5	<.2	1.99	<5	8	95	<5	.60	<1	23	75	93	3.57	.14	<10	1.08	316	<1	.01	35	920	<2	15	<20	38	.18	<10	95	<10	12	62
3 -	H L26N 49 E	<5	<.2	1.79	<5	6	130	5	.64	<1	18	65	46	3.17	.12	<10	.80	324	<1	.02	24	370	<2	15	<20	42	.18	<10	83	<10	14	49
4 -	H L26N 49+ 25E	<5	<.2	1.42	<5	6	150	10	.46	<1	15	45	16	2.38	.06	<10	.46	378	<1	.01	18	1550	<2	10	<20	30	.15	<10	60	<10	10	89
5 -	H L26N 49+ 50E	<5	<.2	2.47	<5	6	75	10	.21	<1	12	17	10	2.83	.04	<10	.46	295	<1	.01	7	2970	4	10	<20	18	.17	<10	73	<10	11	101
6 -	H L26N 49+ 75E	<5	<.2	2.08	<5	6	90	5	.60	<1	24	85	87	3.60	.13	<10	1.08	434	<1	.02	44	380	<2	15	<20	39	.21	<10	97	<10	15	88
7 -	H L26N 50+ 25E	<5	<.2	2.65	<5	6	160	<5	.63	<1	27	104	162	4.15	.07	<10	1.49	379	<1	.01	39	800	<2	20	<20	39	.24	<10	118	<10	16	64
8 -	H L26N 50+ 50E	<5	<.2	4.04	<5	6	180	5	.51	<1	23	83	102	4.61	.10	<10	1.34	445	<1	.01	35	3770	<2	20	<20	35	.18	<10	118	<10	12	117
9 -	H L26N 50+ 75E	<5	<.2	2.14	<5	6	200	5	.50	<1	22	77	50	3.55	.10	<10	.95	423	<1	.01	31	1640	<2	20	<20	33	.18	<10	87	<10	12	91
10 -	H L26N 51 E	<5	<.2	1.57	<5	6	140	10	.54	<1	20	62	31	2.89	.14	<10	.83	272	<1	.01	26	810	<2	15	<20	32	.17	<10	74	<10	12	51
11 -	H L26N 51+ 25E	<5	<.2	2.92	<5	6	355	<5	1.04	<1	16	67	100	3.59	.21	<10	.74	341	<1	.02	37	610	<2	15	<20	56	.16	<10	74	<10	20	55
12 -	H L26N 51+ 50E	<5	<.2	1.83	<5	6	135	10	.64	<1	16	64	23	2.86	.12	<10	.76	248	<1	.02	27	350	<2	10	<20	39	.18	<10	65	<10	13	76
13 -	L27N 48+ 50E	<5	<.2	1.68	<5	6	60	5	.35	<1	22	5	27	2.55	.02	<10	1.25	795	<1	.01	6	1030	<2	15	<20	26	.18	<10	86	<10	11	124
14 -	L27N 48+ 75E	<5	<.2	1.97	<5	6	180	10	.56	<1	18	58	28	2.77	.11	<10	.76	344	<1	.01	28	1570	<2	10	<20	38	.17	<10	63	<10	10	150
15 -	L27N 49 E	<5	<.2	1.64	<5	6	110	5	.45	<1	17	64	19	2.53	.09	<10	.66	354	<1	.01	24	1170	<2	10	<20	35	.16	<10	64	<10	10	91
16 -	L27N 49+ 25E	<5	<.2	3.06	<5	6	200	10	.85	<1	25	84	73	4.60	.20	<10	1.06	409	<1	.02	43	580	<2	15	<20	46	.20	<10	106	<10	15	102
17 -	L27N 49+ 50E	<5	<.2	2.11	<5	6	130	5	.59	<1	19	68	45	3.27	.18	<10	.80	364	<1	.02	32	330	<2	15	<20	38	.18	<10	79	<10	14	74
18 -	L27N 49+ 75E	<5	<.2	1.57	<5	6	85	5	.58	<1	19	67	35	2.91	.13	<10	.93	313	<1	.02	27	480	<2	15	<20	35	.19	<10	78	<10	14	54
19 -	L27N 50+ 25E	<5	<.2	1.75	<5	6	110	15	.54	<1	19	67	26	2.86	.14	<10	.84	317	<1	.01	28	740	<2	15	<20	31	.18	<10	72	<10	12	69
20 -	L27N 50+ 50E	<5	<.2	2.17	<5	6	90	10	.27	<1	16	22	31	2.95	.03	<10	.89	653	<1	.01	9	1310	<2	15	<20	22	.20	<10	87	10	11	139
21 -	L27N 50+ 75E	<5	<.2	2.96	<5	4	535	5	.30	<1	15	24	14	3.24	.09	<10	.57	934	<1	.01	19	1820	<2	10	<20	20	.06	<10	76	<10	4	206
22 -	L27N 51 E	<5	<.2	1.99	<5	6	205	5	.32	<1	15	42	18	2.41	.08	<10	.51	488	<1	.01	25	1000	<2	10	<20	26	.15	<10	55	<10	10	135
23 -	L27N 51+ 25E	<5	<.2	2.10	<5	6	245	10	.47	<1	18	55	20	2.77	.12	<10	.67	453	<1	.01	30	1770	<2	10	<20	37	.16	<10	60	<10	10	154
24 -	L27N 51+ 50E	<5	<.2	1.77	<5	6	115	5	.40	<1	10	48	23	2.14	.12	<10	.52	167	<1	.01	20	550	2	10	<20	24	.17	<10	54	<10	13	40
25 -	L28N 48+ 50E	<5	<.2	2.47	<5	6	125	10	.43	<1	20	50	35	3.15	.10	<10	.81	522	<1	.01	25	970	<2	10	<20	32	.17	<10	84	<10	11	101

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26 -	L28N 48+ 75E	<5	<.2	2.68	<5	6	120	5	.60	<1	22	63	63	3.62	.14	<10	.86	494	<1	.02	31	700	<2	15	<20	35	.19	<10	95	<10	17	72
27 -	L28N 49 E	<5	<.2	1.67	<5	6	215	10	.35	<1	15	43	16	2.42	.10	<10	.45	496	<1	.01	24	1550	<2	10	<20	27	.14	<10	58	<10	9	155
28 -	L28N 49+ 25E	<5	<.2	3.18	<5	8	210	5	.74	<1	24	86	98	4.67	.30	<10	1.03	592	<1	.02	46	400	<2	15	<20	45	.20	<10	101	<10	18	85
29 -	L28N 49+ 50E	<5	<.2	2.06	<5	8	110	10	.71	<1	24	82	43	3.63	.18	<10	1.12	378	<1	.02	35	510	<2	15	<20	48	.20	<10	95	10	16	61
30 -	L28N 49+ 75E	<5	<.2	2.30	<5	6	120	10	.71	<1	23	86	55	3.98	.18	<10	1.13	415	<1	.02	35	510	<2	20	<20	43	.21	<10	101	<10	19	80
31 -	L28N 50+ 25E	<5	<.2	1.78	<5	6	85	5	.49	<1	18	69	32	2.84	.13	<10	.85	276	<1	.01	33	400	<2	10	<20	30	.18	<10	73	<10	13	62
32 -	L28N 50+ 50E	<5	<.2	2.08	<5	6	150	10	.54	<1	21	93	34	3.06	.18	<10	.96	288	<1	.01	35	1310	<2	15	<20	35	.19	<10	71	<10	12	80
33 -	L28N 50+ 75E	<5	<.2	1.87	<5	6	105	10	.58	<1	22	78	32	3.26	.17	<10	1.09	341	<1	.01	30	670	<2	20	<20	34	.21	<10	88	<10	14	59
34 -	L28N 51 E	<5	<.2	.55	<5	4	105	5	.20	<1	5	6	3	1.45	.03	<10	.07	292	<1	.01	2	680	6	<5	<20	16	.11	<10	39	<10	6	36
35 -	L28N 51+ 25E	<5	<.2	3.42	<5	6	195	10	.49	<1	21	72	44	3.99	.12	<10	.98	529	<1	.01	32	1220	<2	20	<20	34	.17	<10	99	<10	10	112
36 -	L28N 51+ 50E	<5	<.2	2.96	<5	4	205	10	.23	<1	19	55	25	3.80	.08	<10	.61	926	<1	.01	27	1190	<2	10	<20	22	.20	<10	95	<10	12	111
37 -	L29N 48+ 50E	<5	<.2	2.36	<5	6	145	10	.31	<1	17	29	25	2.83	.09	<10	.71	329	<1	.01	18	1460	<2	10	<20	34	.16	<10	79	<10	10	117
38 -	L29N 48+ 75E	<5	<.2	1.82	<5	6	85	5	.64	<1	20	57	46	3.27	.17	<10	.83	324	<1	.02	26	750	<2	15	<20	41	.19	<10	93	<10	13	47
39 -	L29N 49 E	<5	<.2	2.80	<5	6	165	20	.46	<1	16	46	20	3.30	.08	<10	.58	252	<1	.01	21	3800	12	15	<20	51	.15	<10	70	10	13	127
40 -	L29N 49+ 25E	<5	<.2	2.24	<5	6	125	15	.34	<1	17	50	31	2.90	.10	10	.68	332	<1	.01	29	1330	8	15	<20	26	.14	<10	70	10	13	88
41 -	L29N 49+ 50E	<5	<.2	1.57	<5	6	105	15	.47	<1	16	57	33	2.57	.11	10	.73	310	<1	.01	27	580	4	15	<20	34	.15	<10	66	10	15	63
42 -	L29N 49+ 75E	<5	<.2	1.85	<5	6	170	10	.32	<1	17	45	16	2.77	.09	<10	.66	379	<1	.01	24	1470	8	15	<20	25	.14	<10	63	20	11	107
43 -	L29N 50+ 25E	<5	<.2	2.20	<5	6	130	15	.44	<1	20	65	38	3.22	.10	10	.86	312	<1	.01	35	1110	6	15	<20	32	.16	<10	77	<10	14	99
44 -	L29N 50+ 50E	<5	<.2	1.43	<5	6	90	15	.51	<1	16	58	33	2.59	.12	10	.82	301	<1	.01	26	430	6	20	<20	31	.16	<10	66	10	16	57
45 -	L29N 50+ 75E	<5	<.2	1.68	<5	6	85	10	.34	<1	13	45	39	2.43	.12	<10	.60	178	<1	.01	27	250	8	15	<20	22	.14	<10	54	10	13	52
46 -	L29N 51 E	<5	<.2	1.53	<5	6	115	15	.37	<1	17	50	24	2.41	.09	<10	.65	366	<1	.01	26	580	6	15	<20	26	.16	<10	61	10	14	71
47 -	L29N 51+ 25E	<5	<.2	1.49	<5	6	115	10	.36	<1	16	49	23	2.33	.09	<10	.65	340	<1	.01	24	560	6	10	<20	26	.15	<10	59	<10	13	67
48 -	L29N 51+ 50E	<5	<.2	1.27	<5	4	90	10	.27	<1	13	31	19	1.77	.07	<10	.42	498	<1	.01	15	400	6	10	<20	22	.12	<10	47	10	11	69
49 -	BL50E 26 N	<5	<.2	1.36	<5	6	130	10	.30	<1	13	43	22	2.26	.08	<10	.54	333	<1	.01	19	810	8	10	<20	21	.13	<10	58	10	12	52
50 -	BL50E 27 N	<5	<.2	1.66	<5	6	120	10	.39	<1	16	53	25	2.49	.11	<10	.64	369	<1	.01	31	670	6	15	<20	25	.14	<10	60	10	12	113

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
51 -	BL50E 28 N	<5	<.2	2.00	<5	6	130	20	.42	<1	23	71	24	3.39	.24	<10	1.04	293	<1	.01	37	560	4	20	<20	26	.18	<10	94	10	15	96
52 -	BL50E 29 N	<5	<.2	2.66	<5	6	110	10	.38	<1	21	54	42	3.30	.08	<10	1.09	405	<1	.01	29	1430	8	15	<20	27	.15	<10	89	<10	13	103
QC/DATA:																																
Repeat #:																																
1 -	H L26N 48+ 50E		<.2	3.24	<5	6	115	5	.42	<1	20	55	43	3.58	.11	<10	.84	418	<1	.01	27	800	<2	15	<20	39	.20	<10	99	<10	12	94
STANDARD 1991:			1.2	2.19	65	8	180	5	2.06	<1	23	64	87	4.45	.43	<10	1.15	741	<1	.02	28	750	16	20	<20	68	.14	<10	94	10	14	76

NOTE: < = LESS THAN
> = GREATER THAN

Fax @: 669-1240

cc: David Ridley
Fax @: 397-2958
CALL : 397-2771 for pick-up

SC93/Pioneer Metals

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.Sc.T.
B.C. Certified Assayer

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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-481
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

DECEMBER 2, 1993

6 SOIL SAMPLES RECEIVED NOVEMBER 19, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 19

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- S L26N 24E	5	<.2	2.14	<5	6	145	20	.69	<1	20	76	35	3.81	.11	<10	1.13	412	<1	.02	37	930	12	20	<20	43	.21	<10	100	<10	17	116
2	- S L26N 24 + 25E	5	<.2	2.25	<5	6	135	15	.48	<1	21	60	38	3.33	.10	<10	.81	436	<1	.01	41	760	14	15	<20	34	.17	<10	77	<10	14	85
3	- S L26N 24 + 25E A	5	<.2	2.21	<5	8	120	15	.49	<1	20	61	37	3.33	.11	<10	.85	415	<1	.01	43	830	12	15	<20	35	.18	<10	77	<10	15	79
4	- S L27N 27 + 50E	5	.2	5.55	15	6	400	<5	1.10	<1	36	119	466	6.67	.44	<10	1.31	874	1	.02	110	460	28	25	<20	78	.21	<10	135	<10	20	128
QC/DATA:																																
STANDARD 1991:			.8	2.04	75	8	175	10	1.98	2	24	77	94	4.32	.42	<10	1.16	747	<1	.02	25	750	24	25	<20	65	.14	<10	88	<10	9	85

NOTE: < = LESS THAN
> = GREATER THAN

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PIONEER METALS CORPORATION ETK 93-321
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

SEPTEMBER 10, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

19 ROCK SAMPLES RECEIVED AUGUST 24, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 06

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93-DR 1	15	<.2	1.68	55	4	60	10	5.29	<1	29	44	12	4.57	.07	<10	1.50	1321	1	.03	9	2390	6	10	<20	287	.16	<10	181	<10	16	73
2	- HAWK 93-DR 2	15	<.2	3.27	40	12	60	<5	5.24	<1	19	35	115	3.88	.08	<10	1.07	745	<1	.02	23	1220	20	10	<20	112	.13	<10	184	<10	13	51
3	- HAWK 93-DR 3	10	<.2	1.95	125	6	120	<5	2.88	<1	24	115	201	3.56	.47	<10	1.43	607	1	.05	19	1250	12	10	<20	196	.27	<10	177	<10	21	39
4	- HAWK 93-DR 4	255	1.2	.24	5	6	15	<5	.40	<1	3	190	1400	.57	.02	<10	.12	147	10	<.01	2	160	2	<5	<20	27	.02	<10	20	<10	1	7
5	- HAWK 93-DR 5	35	<.2	1.23	105	4	50	<5	1.58	<1	22	32	166	4.25	.10	<10	1.02	616	1	.03	4	2100	8	10	<20	100	.24	<10	167	<10	17	39
6	- HAWK 93-DR 6	405	.4	1.53	80	6	55	<5	1.99	<1	20	44	2204	3.49	.14	<10	1.39	661	2	.08	3	1820	10	10	<20	74	.19	<10	217	<10	16	33
7	- HAWK 93-DR 7	325	.6	1.60	80	8	75	<5	1.70	<1	34	119	3245	5.77	.50	<10	2.00	602	3	.09	19	1270	6	15	<20	111	.22	<10	197	<10	14	45
8	- HAWK 93-DR 8	5	<.2	2.27	<5	8	120	<5	8.96	<1	31	256	204	4.40	.25	<10	4.07	1216	<1	.01	60	930	6	15	<20	189	.02	<10	120	<10	6	50
9	- HAWK 93-DR 9	<5	<.2	1.33	80	8	40	<5	2.39	<1	8	106	321	1.30	.05	<10	.49	481	2	.01	11	1060	10	5	<20	400	.15	<10	88	<10	10	14
10	- HAWK 93-DR 10	<5	<.2	1.49	60	4	45	<5	2.13	<1	21	166	191	3.02	.56	<10	1.68	541	<1	.06	35	1510	8	5	<20	163	.15	<10	116	<10	10	44
11	- HAWK 93-DR 11	5	<.2	.77	<5	6	100	<5	6.74	<1	34	17	80	6.16	.49	<10	2.73	1510	<1	<.01	13	2240	2	25	<20	212	<.01	<10	75	<10	4	61
12	- HAWK 93-DR 12	5	<.2	1.61	90	4	145	<5	2.05	<1	29	163	145	3.44	.36	<10	1.68	595	<1	.05	52	1250	10	10	<20	80	.20	<10	103	<10	15	43
13	- HAWK 93-DR 13	<5	<.2	1.57	105	4	50	<5	1.79	<1	36	59	310	4.66	.21	<10	1.47	484	1	.05	22	1260	10	10	<20	112	.25	<10	136	<10	18	40
14	- HAWK 93-DR 14	<5	<.2	1.72	75	4	175	5	5.02	<1	29	87	67	4.46	.12	<10	2.10	873	<1	.03	29	930	6	15	<20	108	.24	<10	166	<10	19	43
15	- HAWK 93-DR 15	10	<.2	2.30	45	2	90	5	10.80	<1	23	139	73	3.67	.18	<10	2.60	1220	<1	<.01	46	340	6	15	<20	148	.13	<10	118	<10	11	40
16	- HAWK 93-DR 16	215	6.6	2.55	110	4	90	<5	2.14	<1	59	172	6959	5.52	.42	<10	2.81	849	4	.02	54	640	12	15	<20	40	.24	<10	143	<10	16	78
17	- HAWK 93-DR 17	15	<.2	3.29	120	4	245	<5	3.18	<1	31	235	421	5.32	.69	<10	3.53	1085	3	.02	65	670	14	20	<20	61	.28	<10	172	<10	19	77
18	- HAWK 93-DR 18	5	<.2	1.11	<5	4	175	<5	.49	<1	6	85	100	2.07	.16	<10	.62	562	4	.02	3	650	12	5	<20	79	.01	<10	35	<10	4	39
19	- HAWK 93-DR 19	<5	<.2	1.71	65	4	55	5	2.30	<1	20	53	52	3.73	.18	<10	1.21	565	1	.08	6	2400	10	5	<20	220	.19	<10	149	<10	16	35

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PIONEER METALS CORPORATION ETK 93-321 ECO-TECH LABORATORIES LTD. SEPTEMBER 10, 1993

QC/DATA:	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
Repeat #:																															
15 - HAWK 93-DR 15		<.2	2.26	55	2	90	10	10.61	<1	23	136	78	3.61	.17	<10	2.57	1199	<1	<.01	45	350	8	15	<20	148	.12	<10	116	<10	10	39
STANDARD 1991:		1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74

NOTE: < = LESS THAN

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PIONEER METALS CORPORATION ETK 93-472
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

NOVEMBER 23, 1993

2 ROCK SAMPLES RECEIVED NOVEMBER 14, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 18

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93 CR 1	5	2.4	.83	<5	4	125	<5	1.68	<1	6	150	1977	1.35	.06	<10	.26	717	10	.03	8	890	56	5	140	144	.07	<10	61	10	8	27
2	- HAWK 93 CR 2	5	<.2	.78	<5	6	350	10	1.31	<1	11	73	65	2.76	.12	<10	.47	404	4	.03	3	2240	252	15	<20	94	.17	<10	109	<10	18	34

QC/DATA:

Repeat #:

1	- HAWK 93 CR 1	2.2	.75	<5	6	120	<5	1.55	<1	6	143	1896	1.22	.06	<10	.24	673	10	.02	8	860	54	5	120	131	.06	<10	55	<10	7	26

STANDARD 1991:

NOTE: < = LESS THAN
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SEPTEMBER 10, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

PIONEER METALS CORPORATION ETK 93-320
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

4 SILT SAMPLES RECEIVED AUGUST 24, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 6

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93 CS 1	<5	<.2	2.41	45	14	245	5	1.79	1	24	90	78	4.40	.27	<10	1.11	2365	<1	.02	39	1180	26	10	<20	130	.13	10	110	<10	15	103
2	- HAWK 93 DS 1	5	<.2	2.11	75	10	125	5	1.34	<1	28	68	92	4.53	.32	<10	1.29	868	<1	.03	28	920	16	10	<20	66	.19	<10	116	<10	14	67
3	- HAWK 93 DS 2	<5	<.2	1.44	70	8	80	5	.79	<1	19	47	30	3.07	.16	<10	.98	432	<1	.02	27	600	14	5	<20	43	.15	<10	77	<10	13	55
4	- HAWK 93 DS 2	15	<.2	1.52	80	10	90	5	1.18	<1	20	91	46	3.34	.23	<10	1.13	518	<1	.02	28	610	12	5	<20	60	.17	<10	93	<10	14	63
QC/DATA:																																
Repeat #:																																
3	- HAWK 93 DS 2		<.2	1.45	80	8	80	5	.82	<1	20	48	29	3.14	.16	<10	.98	431	<1	.02	28	650	14	10	<20	41	.15	<10	79	<10	13	54
STANDARD 1991:		1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74	

NOTE: < = LESS THAN

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PIONEER METALS CORPORATION ETK 93-319
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

SEPTEMBER 13, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

208 SOIL SAMPLES RECEIVED AUGUST 24, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 06

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 30N 44 E	5	73	70.00	5	4	170	5	.59	<1	15	45	22	2	.10	<10	.61	265	<1	.01	21	1220	24	5	<20	38	.15	<10	63	<10	11	97
2	- L 30N 44+25 E	<5	<.2	1.98	5	4	160	10	.43	<1	15	38	15	2	.11	<10	.54	311	<1	.01	19	1940	22	5	<20	35	.15	<10	62	<10	9	108
3	- L 30N 44+50 E	<5	<.2	1.50	5	4	115	5	.37	<1	12	30	11	2	.07	<10	.42	330	<1	.02	14	920	20	5	<20	30	.14	<10	58	<10	10	94
4	- L 30N 44+75 E	<5	<.2	1.68	5	4	95	5	.49	<1	14	43	13	2	.09	<10	.62	235	<1	.01	19	850	16	<5	<20	42	.16	<10	61	<10	11	72
5	- L 30N 45 E	<5	<.2	1.77	5	4	130	5	.39	<1	13	33	12	2	.08	<10	.47	389	<1	.01	17	1080	18	<5	<20	33	.14	<10	56	<10	9	94
6	- L 30N 45+25 E	<5	<.2	1.44	5	4	90	5	.34	<1	12	30	12	2	.06	<10	.42	248	<1	.02	16	670	16	<5	<20	30	.14	<10	59	<10	10	68
7	- L 30N 45+50 E	<5	<.2	1.76	5	4	95	5	.60	<1	18	55	24	3	.09	<10	.89	326	<1	.01	21	880	16	5	<20	49	.18	<10	90	<10	12	60
8	- L 30N 45+75 E	<5	<.2	1.97	5	4	340	5	.38	<1	12	26	14	2	.11	<10	.44	717	<1	.01	16	1670	18	5	<20	33	.12	<10	54	<10	8	127
9	- L 30N 46 E	<5	<.2	1.72	<5	2	155	5	.60	<1	16	47	52	3	.11	<10	.73	400	<1	.02	20	330	16	5	<20	58	.18	<10	79	<10	17	63
10	- L 30N 46+25 E	<5	<.2	1.51	10	4	310	5	.40	<1	12	29	12	2	.08	<10	.29	805	<1	.02	12	1770	16	<5	<20	50	.13	<10	61	<10	8	102
11	- L 30N 47+25 E	5	<.2	1.69	5	2	70	5	.32	<1	14	31	21	2	.07	<10	.47	267	<1	.02	18	1000	18	5	<20	27	.15	<10	62	<10	10	74
12	- L 30N 47+50 E	10	<.2	1.82	5	10	260	20	.52	<1	19	30	21	3	.16	<10	.79	1580	1	.01	14	1040	24	5	<20	35	.18	<10	81	<10	10	142
13	- L 30N 47+75 E	<5	<.2	3.44	5	4	195	5	.48	<1	22	61	58	4	.14	<10	.87	399	<1	.01	31	2040	30	5	<20	44	.18	<10	92	<10	11	133
14	- L 30N 48 E	<5	<.2	1.68	5	2	70	5	.28	<1	15	20	14	2	.04	<10	.46	311	<1	.01	12	1090	14	5	<20	25	.13	<10	61	<10	8	62
15	- L 30N 48+25 E	<5	<.2	1.09	5	2	45	5	.27	<1	10	9	9	3	.03	<10	.37	206	<1	.01	3	1180	10	<5	<20	26	.15	<10	84	<10	9	51
16	- L 30N 48+50 E	5	<.2	1.85	<5	4	100	<5	.43	<1	15	41	18	3	.09	<10	.59	263	<1	.01	23	480	14	<5	<20	31	.15	<10	61	<10	10	88
17	- L 30N 48+75 E	<5	<.2	1.97	<5	2	110	5	.42	<1	15	41	25	3	.08	<10	.64	498	<1	.01	18	1140	14	<5	<20	32	.15	<10	76	<10	10	77
18	- L 30N 49 E	<5	<.2	2.09	5	2	130	5	.47	<1	16	45	19	3	.11	<10	.62	337	<1	.01	23	1090	14	5	<20	34	.14	<10	64	<10	10	112
19	- L 30N 49+25 E	<5	1	6.56	10	8	425	<5	1.70	<1	28	126	398	7	.60	<10	1.47	1428	<1	.02	79	560	34	10	<20	112	.18	<10	137	<10	28	125
20	- L 30N 49+50 E	<5	1	5.41	15	10	445	<5	2.52	<1	24	105	490	6	.50	20	1.20	1561	<1	.03	77	1840	32	10	<20	164	.14	<10	116	<10	52	125
21	- L 30N 49+75 E	<5	1	1.99	10	6	210	<5	3.53	<1	11	57	1667	3	.28	30	.71	501	1	.01	35	950	16	5	<20	161	.04	<10	71	40	63	102
22	- BL 50E 30 N	<5	<.2	1.82	<5	8	80	<5	.57	<1	19	62	49	3	.11	<10	.91	309	<1	.02	26	520	12	5	<20	38	.18	<10	79	<10	13	69
23	- L 31N 44 E	<5	<.2	2.01	5	6	135	5	.31	<1	15	39	16	3	.08	<10	.52	304	<1	.01	23	1210	16	<5	<20	27	.14	<10	55	<10	9	86
24	- L 31N 44+25 E	<5	<.2	1.27	5	6	115	5	.26	<1	9	25	9	2	.06	<10	.33	325	<1	.01	13	1200	12	<5	<20	23	.12	<10	45	10	7	59
25	- L 31N 44+50 E	<5	<.2	1.67	<5	4	110	5	.41	<1	14	44	13	2	.09	<10	.54	309	<1	.02	21	940	14	5	<20	33	.14	<10	56	<10	9	134

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26	- L 31N 44+75 E	<5	<.2	1.96	5	2	115	<5	.48	<1	16	46	23	3	.12	<10	.71	329	<1	.01	22	1140	12	5	<20	38	.15	10	68	<10	10	102
27	- L 31N 45 E	<5	<.2	3.27	5	6	145	10	.35	<1	17	42	23	3	.08	<10	.73	546	<1	.01	25	1350	22	5	<20	29	.17	<10	86	<10	10	110
28	- L 31N 45+25 E	<5	<.2	1.74	5	2	110	<5	.46	<1	15	46	14	3	.08	<10	.62	356	<1	.01	22	500	12	5	<20	31	.15	<10	64	<10	11	64
29	- L 31N 45+50 E	<5	<.2	1.79	10	6	170	<5	.28	<1	11	27	16	2	.07	<10	.44	410	<1	.01	15	1620	14	<5	<20	28	.12	<10	50	<10	7	78
30	- L 31N 45+75 E	<5	<.2	2.11	5	6	115	<5	.48	<1	17	43	31	3	.10	<10	.81	325	<1	.01	23	1010	14	5	<20	40	.17	<10	75	<10	10	77
31	- L 31N 46 E	<5	<.2	1.73	5	4	80	<5	.44	<1	13	30	15	2	.10	<10	.49	238	<1	.01	18	780	12	<5	<20	33	.14	<10	59	<10	8	85
32	- L 31N 46+25 E	<5	<.2	2.00	5	2	155	<5	.26	<1	12	31	12	3	.08	<10	.37	367	<1	.01	15	1960	18	5	<20	23	.14	<10	54	<10	8	135
33	- L 31N 46+50 E	5	<.2	1.99	5	2	155	<5	.26	<1	12	31	12	3	.08	<10	.36	363	<1	.01	15	1960	18	<5	<20	21	.13	<10	54	<10	8	116
34	- L 31N 47+25 E	<5	<.2	2.16	<5	2	110	<5	.30	<1	17	32	21	3	.07	<10	.70	577	<1	.01	16	1310	16	5	<20	26	.15	<10	73	<10	9	108
35	- L 31N 47+50 E	<5	<.2	2.06	5	6	90	5	.68	<1	27	57	44	4	.14	<10	1.33	423	<1	.02	25	730	12	10	<20	41	.21	<10	117	<10	13	63
36	- L 31N 47+75 E	<5	<.2	2.82	<5	4	200	<5	.37	<1	20	45	33	4	.11	<10	.75	470	<1	.01	24	2000	18	5	<20	34	.16	<10	76	<10	10	130
37	- L 31N 48 E	<5	<.2	2.31	5	2	160	<5	.31	<1	15	40	39	3	.12	<10	.52	585	<1	.01	20	900	18	<5	<20	28	.13	<10	63	<10	9	94
38	- L 31N 48+25 E	<5	<.2	1.52	<5	6	80	<5	.38	<1	11	28	27	2	.11	<10	.33	185	<1	.01	16	630	12	<5	<20	28	.12	<10	55	<10	8	67
39	- L 31N 48+50 E	<5	<.2	1.81	10	4	60	<5	.49	<1	14	38	31	2	.21	<10	.53	250	<1	.02	19	520	14	<5	<20	32	.13	<10	58	<10	9	66
40	- L 31N 48+75 E	<5	<.2	1.55	<5	2	70	<5	.35	<1	13	34	29	3	.10	<10	.59	237	<1	.02	17	150	12	<5	<20	29	.15	<10	64	<10	9	51
41	- L 31N 49 E	<5	<.2	1.18	10	2	130	5	.32	<1	10	28	8	2	.07	<10	.34	668	<1	.01	11	960	18	<5	<20	23	.12	<10	49	<10	7	90
42	- L 31N 49+25 E	<5	<.2	1.69	<5	6	120	5	.43	<1	17	47	13	3	.09	<10	.69	497	<1	.01	19	790	12	5	<20	34	.15	<10	65	<10	9	128
43	- L 31N 49+50 E	<5	<.2	1.89	10	2	170	<5	.42	<1	17	42	15	3	.10	<10	.56	297	<1	.01	18	1990	14	5	<20	36	.13	<10	56	<10	8	129
44	- L 31N 49+75 E	<5	1	5.65	<5	10	580	<5	2.11	<1	35	124	477	9	.53	<10	1.49	6093	<1	.02	88	870	22	5	<20	154	.16	<10	211	<10	28	106
45	- BL 50E 31 N	<5	.2	4.12	15	4	280	<5	1.14	<1	25	88	265	6	.36	<10	1.06	719	<1	.02	55	370	24	5	<20	79	.16	<10	113	<10	21	72
46	- L 33N 44+50 E	<5	<.2	2.19	<5	2	85	5	.34	<1	12	19	16	3	.04	<10	.42	264	<1	.03	8	1910	18	5	<20	28	.15	<10	95	<10	7	67
47	- L 33N 44+75 E	<5	<.2	1.05	<5	6	130	<5	.20	<1	10	5	3	2	.03	<10	.42	1231	<1	.01	3	380	8	<5	<20	22	.12	<10	56	<10	6	101
48	- L 33N 45+E	<5	<.2	1.87	<5	6	100	<5	.56	<1	19	56	28	3	.11	<10	.92	324	<1	.02	24	580	12	<5	<20	42	.19	<10	86	<10	12	55
49	- L 33N 45+25 E	<5	<.2	2.93	<5	6	260	5	.82	<1	25	74	62	5	.25	<10	1.18	503	<1	.02	32	420	16	5	<20	59	.20	<10	102	<10	13	75
50	- L 33N 45+50 E	<5	<.2	2.06	<5	6	95	5	.64	<1	22	28	16	4	.05	<10	1.07	445	<1	.01	12	940	12	5	<20	38	.18	<10	97	<10	11	101
51	- L 33N 45+75 E	<5	<.2	2.18	<5	4	110	5	.47	<1	15	26	26	3	.05	<10	.48	243	<1	.01	11	880	16	<5	<20	55	.16	<10	85	<10	9	64
52	- L 33N 47 E	<5	<.2	1.34	<5	8	100	5	.41	<1	13	28	13	2.11	.07	<10	.43	244	<1	.02	12	860	12	<5	<20	36	.14	<10	58	<10	8	54
53	- L 33N 47+25 E	<5	<.2	1.67	5	4	110	10	.56	<1	16	47	20	2.76	.14	<10	.74	441	<1	.02	21	630	12	5	<20	41	.18	<10	72	<10	12	83
54	- L 33N 47+50 E	<5	<.2	1.98	5	4	75	5	.46	<1	19	23	21	3.30	.08	<10	.84	514	<1	.01	13	1670	12	5	<20	29	.18	<10	111	<10	10	95
55	- L 33N 47+75 E	<5	<.2	1.97	5	6	155	5	.21	<1	12	32	28	2.22	.08	<10	.37	579	<1	.01	14	2010	20	<5	<20	19	.14	<10	53	<10	8	89

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
56	- L 33N 48 E	<5	<.2	1.92	5	2	140	5	.41	<1	14	36	17	2.26	.11	<10	.52	738	<1	.01	20	770	14	<5	<20	28	.15	<10	58	<10	9	129
57	- L 33N 48+25 E	<5	<.2	1.76	5	2	115	10	.43	<1	16	44	16	2.48	.07	<10	.56	324	<1	.01	17	1560	14	<5	<20	33	.16	<10	66	<10	9	110
58	- L 33N 48+50 E	<5	<.2	2.17	5	6	145	10	.44	<1	18	50	18	2.79	.09	<10	.62	431	<1	.02	21	1920	16	<5	<20	32	.16	<10	69	<10	9	184
59	- L 33N 48+75 E	<5	<.2	1.86	5	6	65	5	.34	<1	16	90	34	2.25	.10	<10	1.06	328	<1	.02	36	280	14	5	<20	21	.14	<10	60	<10	8	56
60	- L 33N 49 E	5	<.2	1.92	5	4	65	15	.78	<1	28	14	14	3.86	.05	<10	1.43	794	<1	.01	7	1600	10	10	<20	46	.22	<10	141	<10	13	88
61	- L 33N 49+25 E	5	<.2	1.04	5	4	105	5	.39	<1	7	10	4	2.14	.03	<10	.15	982	<1	.01	3	250	12	<5	<20	54	.15	10	100	<10	9	51
62	- L 33N 49+50 E	15	<.2	2.13	5	4	125	5	.63	<1	20	57	34	3.14	.16	<10	.87	467	<1	.02	25	530	16	5	<20	44	.19	<10	84	<10	12	78
63	-BL 50 E 33 N	5	<.2	2.69	5	8	115	5	.69	<1	26	70	54	3.79	.17	<10	.96	480	<1	.02	31	160	16	5	<20	47	.20	<10	110	<10	17	56
64	- L 36N 44+50 E	<5	<.2	1.49	5	8	105	5	.85	<1	14	28	26	2.13	.10	<10	.47	366	<1	.02	14	1200	12	5	<20	66	.13	10	60	<10	8	46
65	- L 36N 44+75 E	<5	<.2	2.66	5	4	145	5	.59	<1	20	33	20	2.92	.08	<10	1.02	754	<1	.02	16	1480	16	5	<20	50	.18	<10	88	<10	9	139
66	- L 36N 45 E	<5	<.2	2.04	5	8	155	10	.38	<1	21	21	13	3.00	.06	<10	1.07	1045	<1	.02	12	1630	14	5	<20	28	.18	<10	95	<10	9	175
67	- L 36N 45+25 E	<5	<.2	2.42	5	4	140	<5	.67	<1	22	63	66	3.50	.14	<10	1.01	395	<1	.02	29	1270	14	5	<20	48	.19	<10	91	<10	14	108
68	- L 36N 45+50 E	<5	<.2	1.98	5	4	110	5	.93	<1	22	70	60	3.42	.23	<10	1.12	541	<1	.03	28	1030	12	5	<20	54	.18	<10	97	<10	13	56
69	- L 36N 45+75 E	<5	<.2	2.45	5	6	160	<5	1.19	<1	24	66	172	3.81	.28	<10	1.14	947	<1	.03	30	500	14	10	<20	75	.18	<10	96	<10	16	87
70	- L 36N 46 E	<5	<.2	1.73	5	8	70	5	.58	<1	19	64	29	2.89	.11	<10	.83	300	<1	.02	24	1030	10	5	<20	41	.17	<10	81	<10	10	53
71	- L 36N 46+25 E	<5	<.2	1.92	<5	4	110	5	.49	<1	18	49	42	3.13	.09	<10	.78	310	<1	.01	23	1170	12	5	<20	36	.17	<10	86	<10	11	83
72	- L 36N 46+50 E	<5	<.2	1.81	10	4	160	5	.35	<1	14	37	12	2.25	.07	<10	.48	515	<1	.01	18	1510	14	<5	<20	28	.14	<10	59	<10	8	130
73	- L 36N 46+75 E	<5	<.2	1.39	5	6	75	5	.50	<1	14	47	14	2.24	.07	<10	.56	223	<1	.02	17	650	8	5	<20	38	.15	<10	63	<10	9	53
74	- L 36N 47 E	10	<.2	1.43	5	6	155	5	.41	<1	12	31	16	2.17	.09	<10	.42	502	<1	.02	14	1940	12	<5	<20	31	.13	<10	57	<10	7	145
75	- L 36N 47+25 E	5	<.2	1.10	5	2	150	5	.24	<1	9	20	6	1.59	.05	<10	.24	449	<1	.02	9	1610	10	<5	<20	22	.11	10	42	<10	6	103
76	- L 36N 47+50 E	<5	<.2	1.66	5	4	135	10	.54	<1	17	51	21	2.73	.14	<10	.71	425	<1	.02	21	680	12	5	<20	36	.19	<10	74	<10	11	80
77	- L 36N 47+75 E	<5	<.2	1.51	5	2	120	10	.48	<1	16	45	18	2.47	.08	<10	.65	377	<1	.02	17	460	10	5	<20	34	.18	<10	69	<10	10	96
78	- L 36N 48 E	5	<.2	1.72	5	6	100	10	.47	<1	19	87	20	2.62	.10	<10	.91	406	<1	.02	23	510	12	5	<20	30	.19	<10	77	<10	10	98
79	- L 36N 48+25 E	<5	<.2	1.86	5	4	185	5	.41	<1	16	25	20	2.67	.06	<10	.71	994	<1	.01	12	1250	14	5	<20	36	.16	<10	79	<10	9	166
80	- L 36N 48+50 E	<5	<.2	1.66	5	4	95	5	.54	<1	17	49	27	2.62	.10	<10	.71	348	<1	.02	20	590	12	5	<20	37	.18	<10	75	<10	11	69
81	- L 36N 48+75 E	<5	<.2	1.34	5	4	170	5	.47	<1	14	35	14	2.14	.08	<10	.46	1045	<1	.02	14	910	10	5	<20	36	.14	<10	58	<10	8	117
82	- L 36N 49	<5	<.2	.89	5	2	90	5	.22	<1	9	21	10	1.64	.05	<10	.23	341	<1	.02	7	860	8	<5	<20	20	.11	<10	48	<10	6	62
83	- L 36N 49+25 E	<5	<.2	2.31	5	4	105	5	.47	<1	18	46	40	2.83	.11	<10	.63	243	<1	.02	22	1300	16	5	<20	33	.15	<10	69	<10	8	93
84	- L 36N 49+50 E	<5	<.2	1.92	5	4	85	5	.61	<1	21	65	52	3.28	.14	<10	1.04	355	<1	.02	27	490	12	5	<20	45	.19	<10	93	<10	13	56
85	- L 36N 49+75 E	5	<.2	3.34	5	4	195	<5	.81	<1	20	65	90	4.00	.25	<10	.80	1415	<1	.03	38	270	22	5	<20	52	.17	<10	76	<10	13	116

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
86	- BL 50E 36N	<5	<.2	2.51	5	2	170	5	.55	<1	19	66	30	3.13	.14	<10	.83	379	<1	.02	29	1720	12	5	<20	37	.17	<10	73	<10	10	139
87	- L 37N 43+25 N	<5	<.2	1.96	5	4	95	<5	.94	<1	14	44	60	2.68	.14	<10	.58	210	<1	.02	20	140	12	<5	<20	58	.16	<10	68	<10	12	28
88	- L 37N 43+50 E	10	<.2	1.71	5	4	95	5	.57	<1	15	32	16	2.28	.13	<10	.54	273	<1	.02	16	1410	12	5	<20	38	.14	<10	61	<10	8	67
89	- L 37N 43+75 E	5	<.2	1.51	5	2	105	5	.36	<1	13	38	13	2.01	.07	<10	.49	309	<1	.02	17	1070	10	<5	<20	32	.13	<10	53	<10	8	70
90	- L 37N 44 E	<5	<.2	1.94	5	2	195	5	.41	<1	14	44	16	2.36	.10	<10	.55	565	<1	.02	20	2630	12	5	<20	33	.13	<10	54	<10	6	73
91	- L 37N 44+25 E	<5	<.2	1.90	5	2	130	5	.50	<1	17	55	26	2.73	.10	<10	.77	435	<1	.02	21	820	12	5	<20	38	.17	<10	75	<10	10	62
92	- L 37N 44+50 E	<5	<.2	1.56	5	4	150	5	.48	<1	15	42	18	2.32	.09	<10	.54	1097	<1	.02	17	1290	10	<5	<20	35	.15	<10	62	<10	9	110
93	- L 37N 44+75 E	<5	<.2	1.57	5	2	160	<5	.35	<1	14	33	23	2.31	.07	<10	.57	280	<1	.02	14	1640	12	5	<20	28	.14	<10	65	<10	8	75
94	- L 37N 45 E	<5	<.2	1.20	5	4	140	5	.29	<1	13	31	8	1.81	.05	<10	.43	619	<1	.02	13	1010	10	<5	<20	22	.13	<10	51	<10	6	93
95	- L 37N 45+25 E	<5	<.2	1.83	10	2	115	5	.39	<1	14	22	26	2.19	.06	<10	.55	506	<1	.01	11	1300	12	5	<20	38	.14	<10	67	<10	7	106
96	- L 37N 45+50 E	5	<.2	1.99	5	2	90	5	.49	<1	18	48	33	2.84	.09	<10	.70	270	<1	.02	22	460	10	5	<20	39	.17	<10	78	<10	10	116
97	- L 37N 45+75 E	<5	<.2	1.39	5	2	100	<5	.34	<1	14	34	12	2.08	.05	<10	.45	312	<1	.02	13	1070	12	<5	<20	28	.14	<10	56	<10	7	94
98	- L 37N 46	<5	<.2	2.81	5	4	135	<5	.66	<1	19	53	126	3.31	.17	<10	.77	270	<1	.02	31	590	20	5	<20	49	.17	<10	77	<10	12	74
99	- L 37N 46+25 E	<5	<.2	2.30	5	4	175	10	.40	<1	18	43	20	2.96	.10	<10	.65	288	<1	.02	23	2250	20	5	<20	34	.16	<10	65	<10	8	158
100	- L 37N 46+50 E	<5	<.2	1.70	5	4	150	5	.40	<1	12	29	12	2.01	.08	<10	.45	627	<1	.02	14	540	16	5	<20	37	.14	10	55	<10	8	92
101	- L 37N 46+75 E	<5	<.2	1.67	5	4	155	5	.28	<1	12	30	11	2.08	.06	<10	.38	699	<1	.01	13	1120	16	5	<20	25	.14	<10	55	<10	7	111
102	- L 37N 47 E	<5	<.2	1.83	5	4	105	10	.57	<1	17	50	26	2.88	.11	<10	.77	338	<1	.01	21	700	14	5	<20	45	.18	<10	77	<10	11	89
103	- L 37N 47+25 E	<5	<.2	2.44	5	4	165	5	.40	<1	16	40	45	2.94	.09	<10	.73	384	<1	.01	21	1060	20	5	<20	32	.17	<10	80	<10	9	100
104	- L 37N 47+75 E	<5	<.2	2.18	5	4	175	5	.43	<1	19	60	26	3.21	.12	<10	.78	522	<1	.01	25	1450	16	5	<20	37	.16	<10	74	<10	9	117
105	- L 37N 48	5	<.2	2.00	10	4	95	10	.49	<1	20	118	36	2.82	.09	<10	1.11	399	<1	.01	33	600	14	5	<20	34	.17	<10	71	<10	10	96
106	- L 37N 48+25 E	5	<.2	1.64	5	4	130	5	.34	<1	13	32	12	2.15	.07	<10	.42	664	<1	.01	16	950	16	5	<20	29	.13	<10	58	<10	7	134
107	- L 37N 48+50 E	5	<.2	2.05	5	2	120	5	.42	<1	19	48	39	2.80	.06	<10	.77	411	<1	.01	22	640	16	5	<20	34	.16	<10	76	<10	9	86
108	- L 37N 48+75 E	<5	<.2	1.55	5	4	105	5	.47	<1	17	43	25	2.65	.09	<10	.70	567	<1	.01	19	720	12	5	<20	36	.16	<10	70	<10	9	94
109	- L 37N 49 E	<5	<.2	1.85	5	4	105	5	.73	<1	14	48	35	2.68	.12	<10	.51	245	<1	.02	21	670	16	5	<20	61	.12	<10	62	<10	8	60
110	- L 37N 49+25 E	<5	<.2	1.87	5	4	80	5	.79	<1	18	63	57	3.26	.17	<10	.82	343	<1	.02	21	170	14	5	<20	51	.18	<10	81	<10	11	50
111	- L 37N 49+50 E	<5	<.2	1.92	5	4	120	5	.53	<1	17	50	35	2.85	.11	<10	.77	380	<1	.02	24	1090	14	5	<20	37	.15	<10	70	<10	9	86
112	- L 37N 49+75 E	<5	<.2	1.34	5	4	105	5	.34	<1	11	28	15	1.90	.08	<10	.40	426	<1	.01	14	1320	14	5	<20	27	.12	<10	50	<10	6	73
113	- BL 50E 37 N	<5	<.2	1.13	5	2	85	<5	.29	<1	7	12	8	1.26	.03	<10	.18	241	<1	.02	7	1970	12	<5	<20	25	.08	<10	32	<10	5	54
114	- L 38N 42 E	<5	<.2	1.73	5	4	110	5	.56	<1	17	51	35	2.74	.14	<10	.76	325	<1	.02	22	740	14	5	<20	43	.17	<10	71	<10	10	73
115	- L 38N 42+25 E	<5	<.2	1.12	5	4	135	5	.35	<1	10	22	11	1.66	.07	<10	.33	569	<1	.02	13	640	12	<5	<20	31	.11	<10	47	<10	6	111

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
116 -	L 38N 42+50 E	<5	<.2	1.69	5	4	115	5	.48	<1	15	47	33	2.65	.20	<10	.67	336	<1	.02	21	600	14	<5	<20	39	.15	<10	67	<10	9	69
117 -	L 38N 42+75 E	<5	<.2	1.47	5	4	90	5	.40	<1	14	42	21	2.20	.08	<10	.51	254	<1	.01	19	1040	12	<5	<20	32	.13	<10	56	<10	7	59
118 -	L 38N 43 E	<5	<.2	1.51	5	2	190	5	.70	<1	11	10	7	1.75	.09	<10	.46	939	<1	.01	7	1580	14	5	<20	72	.08	<10	43	<10	4	108
119 -	L 38N 43+25 E	<5	<.2	1.41	5	2	200	5	.58	<1	12	14	10	2.04	.07	<10	.50	694	<1	.01	6	440	12	5	<20	62	.12	<10	66	<10	6	94
120 -	L 38N 43+50 E	<5	<.2	1.87	5	2	175	<5	.48	<1	14	34	47	2.65	.10	<10	.59	220	<1	.01	17	480	16	5	<20	45	.11	<10	68	<10	7	75
121 -	L 38N 43+75 E	5	<.2	1.54	5	6	125	5	.46	<1	14	42	27	2.37	.10	<10	.61	270	<1	.02	17	1020	14	5	<20	40	.14	<10	60	<10	7	85
122 -	L 38N 44 E	<5	<.2	1.71	5	6	85	5	.53	<1	17	46	32	2.67	.12	<10	.73	284	<1	.01	22	830	14	5	<20	42	.16	<10	71	<10	10	77
123 -	L 38N 44+25 E	<5	<.2	1.47	5	4	100	10	.42	<1	14	39	27	2.42	.06	<10	.60	212	<1	.01	16	510	14	5	<20	35	.16	<10	67	<10	9	68
124 -	L 38N 44+50 E	<5	<.2	1.72	5	4	190	5	.47	<1	12	23	23	2.12	.07	<10	.34	1636	<1	.01	12	680	16	<5	<20	34	.12	<10	53	<10	6	127
125 -	L 38N 44+75 E	<5	<.2	1.56	5	4	135	5	.38	<1	14	47	23	2.35	.07	<10	.62	422	<1	.01	22	820	14	5	<20	31	.14	<10	61	<10	8	84
126 -	L 38N 45 E	<5	<.2	1.10	5	4	90	5	.35	<1	11	40	11	1.75	.06	<10	.40	447	<1	.01	15	630	10	<5	<20	27	.12	<10	50	<10	6	78
127 -	L 38N 45+25 E	<5	<.2	1.40	5	4	160	5	.23	<1	11	20	35	1.72	.07	<10	.28	759	<1	.01	14	1430	16	<5	<20	19	.11	<10	40	<10	6	140
128 -	L 38N 45+50 E	5	<.2	1.91	5	4	100	5	.37	<1	16	43	30	3.02	.09	<10	.68	261	<1	.01	23	240	18	5	<20	26	.13	<10	61	<10	9	70
129 -	L 38N 45+75 E	<5	<.2	.91	5	4	140	5	.19	<1	8	15	9	1.83	.04	<10	.20	389	<1	.01	8	1340	14	<5	<20	12	.09	<10	40	<10	5	87
130 -	L 38N 46 E	5	<.2	1.54	5	4	80	5	.51	<1	14	40	29	2.91	.10	<10	.58	204	<1	.01	18	750	14	5	<20	38	.12	<10	61	<10	8	66
131 -	L 38N 46+25 E	<5	<.2	1.61	5	4	140	5	.31	<1	15	37	23	2.72	.07	<10	.61	438	<1	.01	17	1100	18	<5	<20	24	.12	<10	57	<10	8	121
132 -	L 38N 46+50 E	5	<.2	2.02	5	8	115	5	.54	<1	19	57	75	3.65	.10	<10	.96	308	<1	.01	27	1120	18	10	<20	37	.14	<10	77	<10	11	73
133 -	L 38N 46+75 E	<5	<.2	2.25	5	4	90	5	.42	<1	21	85	31	3.59	.09	<10	1.15	323	<1	.01	35	580	22	5	<20	26	.16	<10	75	<10	10	111
134 -	L 38N 47 E	<5	<.2	1.61	5	8	215	5	.32	<1	12	34	11	2.41	.09	<10	.40	396	<1	.01	15	2200	18	<5	<20	24	.11	<10	48	<10	6	85
135 -	L 38N 47+25 E	<5	<.2	2.58	5	8	125	<5	.52	<1	16	46	75	3.42	.13	<10	.63	547	<1	.02	32	420	26	<5	<20	29	.14	<10	69	<10	13	96
136 -	L 38N 47+50 E	<5	<.2	2.49	5	8	110	5	.69	<1	18	48	116	3.79	.17	<10	.73	361	<1	.02	39	410	24	5	<20	38	.15	<10	73	<10	13	64
137 -	L 38N 47+75 E	<5	<.2	1.82	5	6	185	10	.39	<1	18	50	26	3.27	.12	<10	.77	575	<1	.01	23	960	20	5	<20	28	.15	<10	69	<10	10	136
138 -	L 38N 48 E	<5	<.2	2.20	5	6	160	10	.39	<1	26	87	44	3.99	.14	<10	1.20	610	<1	.01	39	1640	20	5	<20	28	.17	<10	80	<10	11	145
139 -	L 38N 48+25 E	<5	<.2	1.64	5	6	90	5	.41	<1	14	34	30	2.73	.07	<10	.51	671	<1	.01	18	270	18	<5	<20	23	.13	<10	61	<10	9	135
140 -	L 38N 48+50 E	<5	<.2	1.56	5	6	190	5	.40	<1	17	33	13	2.71	.06	<10	.74	538	<1	.01	15	1890	16	5	<20	27	.13	<10	69	<10	7	131
141 -	L 38N 48+75 E	5	<.2	1.98	5	6	170	5	.35	<1	19	46	41	3.32	.08	<10	.77	362	<1	.01	25	980	18	<5	<20	28	.14	<10	69	<10	9	134
142 -	L 38N 49 E	90	<.2	1.69	5	8	130	5	.37	<1	16	48	29	2.89	.09	<10	.64	308	<1	.01	26	610	18	<5	<20	24	.14	<10	59	<10	8	93
143 -	L 38N 49+25 E	5	<.2	2.21	5	6	120	5	.36	<1	16	45	49	3.34	.10	<10	.69	291	<1	.01	31	1490	20	5	<20	30	.13	<10	67	<10	8	86
144 -	L 38N 49+50 E	<5	<.2	1.58	5	4	205	<5	.24	<1	13	37	71	2.53	.07	<10	.43	457	<1	.01	18	2410	18	<5	<20	18	.11	<10	47	<10	6	101
145 -	L 38N 49+75 E	<5	<.2	2.16	5	6	235	5	.47	<1	20	78	46	3.45	.08	<10	.82	404	<1	.01	34	2130	18	<5	<20	32	.13	<10	65	<10	8	133

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
146	BL 50E 38 N	<5	<.2	1.71	5	4	190	5	.36	<1	14	65	15	2.67	.10	<10	.52	330	<1	.01	28	1030	18	5	<20	24	.13	<10	54	<10	8	90
147	L 40N 42 E	<5	<.2	2.36	5	4	480	5	.48	<1	17	39	23	3.49	.13	<10	.72	800	<1	.01	20	620	24	<5	<20	35	.11	<10	73	<10	7	116
148	L 40N 42+25 E	<5	<.2	1.98	5	4	125	10	.31	<1	15	36	12	2.80	.06	<10	.55	230	<1	.01	19	1170	20	<5	<20	21	.13	<10	56	<10	7	122
149	L 40N 42+50 E	<5	<.2	2.07	5	6	105	5	.35	<1	16	39	37	3.08	.06	<10	.73	314	<1	.01	19	1020	20	5	<20	23	.14	<10	67	<10	8	102
150	L 40N 42+75 E	<5	<.2	1.64	5	4	125	5	.41	<1	15	35	38	2.72	.09	<10	.61	349	<1	.01	18	450	16	5	<20	30	.14	<10	61	<10	9	98
151	L 40N 43 E	<5	<.2	.88	5	6	195	5	.20	<1	8	14	11	1.69	.05	<10	.18	183	<1	.01	6	1600	12	<5	<20	16	.09	<10	38	<10	4	60
152	L 40N 43+25 E	<5	<.2	2.26	5	6	115	10	.53	<1	21	43	62	4.10	.07	<10	1.17	399	<1	.01	20	1000	18	5	<20	38	.17	<10	98	<10	11	82
153	L 40N 43+50 E	<5	<.2	2.15	5	6	110	10	.42	<1	18	49	28	3.50	.08	<10	.83	249	<1	.01	27	1070	20	5	<20	31	.14	<10	69	<10	8	87
154	L 40N 43+75 E	<5	<.2	2.17	5	6	125	5	.35	<1	18	43	24	3.44	.07	<10	.84	297	<1	.01	21	1370	22	<5	<20	26	.14	<10	69	<10	8	82
155	L 40N 44 E	<5	<.2	1.83	5	6	95	5	.44	<1	18	52	37	3.49	.09	<10	.87	245	<1	.01	25	570	16	<5	<20	34	.16	<10	78	<10	10	60
156	L 40N 44+25 E	<5	<.2	1.86	5	4	135	<5	.51	<1	17	53	39	3.31	.11	<10	.83	315	<1	.01	23	1050	16	5	<20	39	.15	<10	68	<10	9	126
157	L 40N 44+50 E	<5	<.2	1.62	5	4	140	5	.39	<1	16	50	40	2.94	.09	<10	.72	568	<1	.01	22	440	14	5	<20	29	.15	<10	67	<10	9	85
158	L 40N 44+75 E	<5	<.2	1.51	5	6	115	5	.26	<1	12	27	24	2.26	.06	<10	.44	288	<1	.01	16	540	16	<5	<20	23	.12	<10	50	<10	8	107
159	L 40N 45 E	<5	<.2	1.47	5	6	135	5	.20	<1	12	28	18	2.31	.06	<10	.41	475	<1	.01	14	1740	16	<5	<20	14	.11	<10	49	<10	6	109
160	L 40N 45+25 E	<5	<.2	1.80	5	6	160	<5	.34	<1	15	41	30	2.78	.06	<10	.64	490	<1	.01	22	990	16	<5	<20	25	.13	<10	58	<10	7	122
161	L 40N 45+50 E	<5	<.2	1.08	5	6	90	5	.25	<1	12	50	15	1.97	.06	<10	.51	346	<1	.02	16	660	16	<5	<20	13	.11	<10	47	<10	6	100
162	L 40N 45+75 E	<5	<.2	1.98	5	4	130	5	.44	<1	20	118	34	2.88	.10	<10	1.16	334	<1	.02	37	1500	18	5	<20	26	.14	<10	56	<10	7	128
163	L 40N 46 E	<5	.6	4.17	5	8	210	<5	.89	<1	24	90	346	5.83	.29	<10	1.14	1110	<1	.02	62	380	34	10	<20	60	.17	<10	100	<10	20	113
164	L 40N 46+25 E	<5	<.2	1.80	5	6	80	<5	.41	<1	15	49	102	2.79	.08	<10	.66	342	<1	.01	25	350	18	<5	<20	30	.13	<10	62	<10	9	120
165	L 40N 46+50 E	<5	<.2	2.51	5	4	220	5	.42	<1	19	48	35	3.47	.07	<10	.74	631	<1	.01	28	2670	22	<5	<20	30	.12	<10	66	<10	7	180
166	L 40N 46+75 E	<5	<.2	1.67	5	8	135	5	.46	<1	15	46	39	2.39	.08	<10	.69	426	<1	.02	21	1040	14	5	<20	36	.14	<10	61	<10	9	83
167	L 40N 47 E	<5	<.2	2.37	5	8	120	5	.78	<1	22	67	70	3.50	.17	<10	.90	424	<1	.02	25	250	18	5	<20	56	.18	<10	88	<10	12	62
168	L 40N 47+25 E	15	<.2	1.00	5	6	80	5	.17	<1	8	20	10	1.46	.04	<10	.26	135	<1	.01	9	1400	12	<5	<20	17	.10	<10	40	<10	5	61
169	L 40N 47+50 E	<5	<.2	1.62	5	4	135	5	.42	<1	16	54	28	2.35	.07	<10	.72	324	<1	.02	24	1070	14	5	<20	33	.14	<10	63	<10	8	107
170	L 40N 47+75 E	<5	<.2	1.55	5	4	100	5	.41	<1	14	44	20	2.27	.11	<10	.57	333	<1	.02	20	570	14	5	<20	32	.15	<10	59	<10	8	90
171	L 40N 48 E	<5	<.2	1.53	5	4	85	5	.40	<1	18	41	29	2.67	.07	<10	.71	331	<1	.01	22	580	12	5	<20	33	.16	<10	72	<10	8	80
172	L 40N 48+25 E	<5	<.2	1.42	5	10	75	10	.53	<1	14	47	27	2.41	.17	<10	.65	238	<1	.02	21	500	12	5	<20	38	.16	<10	62	<10	9	49
173	L 40N 48+50 E	5	<.2	1.88	5	10	130	<5	.45	<1	18	49	39	2.79	.10	<10	.80	428	<1	.02	26	1010	14	5	<20	36	.15	<10	69	<10	8	119
174	L 40N 48+75 E	<5	<.2	2.10	5	6	95	5	.42	<1	18	51	28	2.85	.08	<10	.74	411	<1	.01	21	790	18	5	<20	33	.16	<10	75	<10	8	79
175	L 40N 49 E	<5	<.2	2.42	5	4	125	5	.38	<1	18	48	43	3.27	.07	<10	.80	377	<1	.01	21	1160	20	5	<20	33	.17	<10	88	<10	8	124

ET#	DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
176	L 40N 49+25 E	<5	<.2	2.44	5	4	140	5	.40	<1	16	44	36	2.87	.09	<10	.63	370	<1	.01	21	540	22	5	<20	35	.17	<10	78	<10	9	97
177	L 40N 49+50 E	<5	<.2	2.64	5	4	70	10	.35	<1	14	32	21	3.07	.06	<10	.64	249	<1	.01	16	990	22	<5	<20	47	.14	<10	85	<10	7	95
178	L 40N 49+75 E	<5	<.2	1.58	5	6	110	5	.32	<1	12	35	18	2.03	.05	<10	.44	202	<1	.02	15	1100	16	5	<20	26	.13	<10	52	<10	7	75
179	BL 50E 40N	<5	<.2	1.63	5	4	230	5	.45	<1	15	34	22	2.35	.10	<10	.51	1299	<1	.02	14	2030	18	<5	<20	45	.12	<10	56	20	7	372
180	L 41N 42 E	<5	<.2	1.96	5	4	95	5	.58	1	18	54	29	2.81	.13	<10	.81	317	<1	.02	25	690	16	5	<20	39	.17	<10	71	<10	10	128
181	L 41N 42+25 E	<5	<.2	1.93	10	6	140	5	.48	<1	15	47	27	2.46	.09	<10	.62	460	<1	.02	22	290	20	5	<20	36	.15	<10	61	<10	9	107
182	L 41N 42+50 E	<5	<.2	2.22	5	8	110	10	.75	<1	24	64	69	3.77	.12	<10	1.26	433	<1	.02	26	950	16	10	<20	56	.20	<10	105	10	13	77
183	L 41N 42+75 E	<5	<.2	1.97	5	4	65	10	.52	<1	16	43	32	2.89	.05	<10	.68	214	<1	.01	20	1010	16	5	<20	41	.15	<10	75	<10	9	72
184	L 41N 43 E	<5	<.2	3.03	5	8	165	<5	1.16	<1	22	60	248	3.89	.21	<10	.91	736	<1	.02	31	250	24	5	<20	63	.18	<10	85	<10	19	74
185	L 41N 43+25 E	<5	<.2	2.84	5	4	135	<5	.74	<1	15	45	253	3.28	.18	<10	.65	467	<1	.03	31	210	24	5	<20	46	.14	<10	64	<10	16	63
186	L 41N 43+50 E	<5	<.2	1.93	5	6	145	10	.43	<1	19	25	44	2.96	.06	<10	.76	422	<1	.01	15	1920	20	5	<20	35	.16	<10	78	<10	9	101
187	L 41N 43+75 E	<5	<.2	1.63	10	4	140	5	.34	<1	13	31	29	2.34	.07	<10	.42	269	<1	.01	14	1600	18	<5	<20	28	.14	<10	57	<10	8	96
188	L 41N 44	<5	<.2	1.93	5	4	95	10	.36	<1	15	32	28	2.67	.05	<10	.58	527	<1	.01	15	920	16	5	<20	30	.15	<10	74	<10	9	88
189	L 41N 44+25 E	<5	<.2	1.88	5	8	100	5	.60	<1	21	63	67	3.27	.17	<10	.96	384	<1	.02	28	590	16	5	<20	44	.18	<10	86	<10	13	56
190	L 41N 44+50 E	<5	<.2	1.23	5	6	260	<5	.30	<1	9	15	37	1.66	.06	<10	.22	876	<1	.02	9	1460	14	<5	<20	30	.10	<10	42	10	6	170
191	L 41N 45+25 E	<5	<.2	1.56	5	6	145	5	.47	<1	11	15	44	2.27	.07	<10	.43	451	<1	.01	8	420	16	5	<20	48	.12	<10	65	<10	8	74
192	L 41N 45+75 E	<5	<.2	2.37	5	6	240	5	.73	<1	17	5	75	3.23	.08	<10	.93	1531	<1	.01	6	810	24	5	<20	51	.11	<10	93	<10	6	91
193	L 41N 45 E	<5	<.2	1.97	5	4	175	10	.33	<1	13	27	16	2.64	.07	<10	.47	431	<1	.01	14	1230	18	5	<20	31	.15	<10	73	<10	9	133
194	L 41N 45+25 E	<5	<.2	1.71	10	4	90	5	.51	<1	16	48	46	2.62	.11	<10	.71	413	<1	.02	23	370	16	5	<20	34	.17	<10	70	<10	12	79
195	L 41N 46+50 E	<5	<.2	1.87	5	4	110	10	.55	<1	18	58	34	3.01	.15	<10	.79	413	<1	.02	26	610	14	5	<20	39	.17	<10	76	<10	11	74
196	L 41N 46+75 E	<5	<.2	2.51	5	4	215	10	.42	<1	19	29	18	3.13	.08	<10	.86	899	<1	.01	15	2310	22	5	<20	35	.16	<10	87	<10	10	207
197	L 41N 47 E	<5	<.2	1.96	5	8	135	10	.45	<1	16	48	26	2.56	.11	<10	.65	375	<1	.02	26	660	18	5	<20	32	.16	<10	64	<10	10	95
198	L 41N 47+25 E	<5	<.2	1.50	5	6	90	5	.52	<1	15	52	21	2.42	.10	<10	.63	334	<1	.02	20	450	14	5	<20	38	.16	<10	64	<10	11	49
199	L 41N 47+50 E	<5	<.2	1.92	5	4	70	15	.31	<1	18	6	29	2.84	.06	<10	1.12	580	<1	.01	5	1450	16	5	<20	26	.20	<10	93	<10	10	83
200	L 41N 47+75 E	<5	<.2	2.97	10	6	100	10	.28	<1	14	42	71	3.43	.06	<10	.61	298	<1	.01	19	1640	26	5	<20	26	.17	<10	98	<10	9	90
201	L 41N 48 E	<5	<.2	3.25	5	6	125	5	.37	<1	16	54	92	3.94	.08	<10	.81	513	<1	.01	20	2010	28	5	<20	31	.17	<10	106	<10	9	77
202	L 41N 48+25 E	<5	<.2	2.11	5	6	125	10	.30	<1	17	14	37	3.39	.04	<10	.67	1557	<1	.01	7	1180	18	5	<20	27	.17	<10	102	10	9	173
203	L 41N 48+50 E	5	<.2	2.75	5	4	125	10	.40	<1	18	69	63	3.55	.13	<10	.86	390	<1	.01	24	1270	22	<5	<20	16	.16	<10	104	10	8	68
204	L 41N 48+75 E	<5	<.2	2.25	10	4	140	5	.29	<1	17	47	23	3.08	.09	<10	.67	230	<1	.01	19	1330	20	5	<20	22	.13	<10	70	<10	8	74
205	L 41N 49+25 E	<5	<.2	1.26	5	4	60	5	.25	<1	10	26	17	1.78	.04	<10	.37	126	<1	.01	10	260	14	<5	<20	18	.11	10	50	<10	6	34

ET# DESCRIPTION	Au (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
206 - L 41N 49+50 E	<5	<.2	2.02	5	4	80	5	.37	<1	17	57	48	2.97	.06	<10	.74	321	<1	.01	23	600	16	5	<20	27	.14	<10	76	<10	8	55
207 - L 41N 49+75 E	<5	<.2	1.62	5	4	130	5	.31	<1	15	27	58	2.60	.06	<10	.51	1149	<1	.01	13	580	16	5	<20	23	.12	10	70	<10	7	115
208 - BL 50E 41 N	<5	<.2	2.16	<5	4	160	10	.33	<1	17	45	42	3.01	.07	<10	.75	564	<1	.01	20	950	20	<5	<20	25	.14	<10	74	<10	8	83
QC DATA																															
REPEAT #:																															
10 - L 30N 46+25 E		<.2	1.54	10	4	310	5	.41	<1	12	28	13	2.17	.08	<10	.30	807	<1	.02	12	1780	14	5	<20	52	.13	<10	62	<10	8	103
50 - L 33N 45+50 E		<.2	2.08	<5	2	90	5	.65	<1	22	29	17	3.59	.04	<10	1.09	450	<1	.01	12	950	12	5	<20	39	.19	<10	98	<10	11	102
82 - L 36N 49		<.2	.92	5	2	90	5	.23	<1	9	21	11	1.65	.05	<10	.23	338	<1	.02	8	800	8	<5	<20	22	.12	<10	48	<10	6	57
125 - L 38N 44+75 E		<.2	1.58	5	4	140	5	.39	<1	15	47	24	2.38	.07	<10	.62	425	<1	.01	22	850	12	5	<20	32	.14	<10	62	<10	8	86
160 - L 40N 45+25 E		<.2	1.83	5	4	160	5	.34	<1	16	41	30	2.81	.06	<10	.65	500	<1	.01	24	1010	18	<5	<20	24	.13	<10	58	<10	7	124
200 - L 41N 47+75 E		<.2	2.68	5	6	110	5	.25	<1	13	39	66	3.10	.07	<10	.54	273	1	.01	17	1680	24	5	<20	22	.15	<10	93	<10	8	85
205 - L 41N 49+25 E		<.2	1.29	<5	4	60	5	.27	<1	10	27	20	1.86	.04	<10	.37	133	<1	.01	12	260	14	<5	<20	19	.11	<10	55	<10	7	35
STANDARD 1991 -		1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74
STANDARD 1991 -		1.0	2.23	80	4	155	<5	1.87	<1	21	71	85	4.45	.40	<10	1.10	744	<1	.02	24	640	22	10	<20	76	.14	<10	90	<10	12	73
STANDARD 1991 -		1.2	2.13	75	4	145	5	1.88	<1	21	72	80	3.96	.40	<10	1.07	733	<1	.03	23	600	20	10	<20	75	.14	<10	89	<10	12	71
STANDARD 1991 -		1.0	2.07	65	6	160	5	1.83	<1	20	70	80	4.02	.40	<10	.98	712	<1	.02	24	650	26	10	<20	67	.13	<10	87	<10	12	70
STANDARD 1991 -		1.2	1.87	65	4	135	5	1.63	<1	18	63	80	3.60	.35	<10	.93	647	<1	.02	22	580	22	10	<20	68	.12	<10	77	<10	10	70
STANDARD 1991 -		1.2	2.20	80	8	185	<5	1.85	<1	22	72	85	4.98	.41	<10	1.18	784	<1	.02	28	690	28	10	<20	68	.13	<10	88	<10	12	75

NOTE: < = LESS THAN

Fax @: 669-1240

cc: David Ridley
Fax @: 397-2958
CALL : 397-2771 for pick-up

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ECO-TECH LABORATORIES LTD.
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PHONE - 604-573-5700
FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-368
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

OCTOBER 6, 1993

50 SOIL SAMPLES RECEIVED SEPTEMBER 20, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

SHIPMENT #: 10

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	BL 50 E (32N)	<5	<.2	1.71	<5	8	85	5	.61	<1	16	58	39	2.74	.14	10	.94	404	<1	.01	29	1050	62	5	<20	38	.16	<10	70	<10	15	68
2 -	L 32 N 49+75E	<5	<.2	2.00	10	8	90	5	.49	<1	18	53	25	2.83	.11	<10	.73	308	<1	.01	29	710	34	5	<20	39	.16	<10	70	<10	12	78
3 -	L 32 N 49+50E	5	<.2	1.57	5	6	90	5	.45	<1	16	48	25	2.53	.06	<10	.62	584	<1	.01	21	570	24	5	<20	34	.14	<10	65	<10	11	83
4 -	L 32 N 49+25E	<5	<.2	1.86	5	6	90	5	.44	<1	14	42	17	2.44	.08	<10	.51	265	<1	.01	21	1380	28	5	<20	34	.13	<10	57	<10	9	108
5 -	L 32 N 49E	<5	<.2	2.35	5	6	130	<5	.55	<1	16	58	78	3.09	.18	10	.73	1189	<1	.02	34	550	34	5	<20	33	.13	<10	78	<10	21	90
6 -	L 32 N 48+75E	<5	<.2	1.67	10	8	80	5	.55	<1	19	53	34	2.86	.11	<10	.75	328	<1	.01	21	610	24	5	<20	46	.17	<10	75	<10	13	73
7 -	L 32 N 48+50E	<5	<.2	.54	5	8	50	<5	3.60	<1	3	11	41	.68	.06	<10	.30	104	<1	<.01	7	570	6	5	<20	187	.01	<10	16	<10	5	60
8 -	L 32 N 47+25E	<5	<.2	2.19	5	8	95	15	.45	<1	21	40	30	3.28	.08	<10	.82	516	1	.01	15	970	32	10	<20	32	.16	<10	83	<10	14	107
9 -	L 32 N 47E	<5	<.2	2.47	5	4	105	10	.50	<1	21	60	73	3.46	.10	<10	1.06	536	1	.01	22	1380	34	10	<20	33	.18	<10	83	<10	16	111
10 -	L 32 N 46+75E	<5	<.2	1.97	5	8	80	15	.57	<1	22	58	28	3.46	.08	<10	1.02	278	<1	.01	17	640	26	15	<20	42	.20	<10	96	<10	17	81
11 -	L 32 N 46+25E	<5	<.2	2.06	5	6	80	10	.57	<1	15	28	43	2.93	.12	<10	.53	192	<1	.01	11	1000	30	5	<20	37	.16	<10	75	<10	15	62
12 -	L 32 N 46E	<5	<.2	1.26	10	2	105	10	.40	<1	13	11	14	2.24	.06	<10	.46	476	<1	.01	3	860	20	5	<20	32	.13	<10	59	<10	11	87
13 -	L 32 N 45+75E	<5	<.2	1.80	5	4	105	10	.43	<1	16	24	24	2.68	.06	<10	.66	433	<1	<.01	10	1150	30	10	<20	35	.13	<10	67	30	11	91
14 -	L 32 N 49+50E	5	<.2	1.79	<5	6	110	10	.40	<1	15	20	23	2.40	.06	<10	.67	362	1	.01	9	1050	24	5	<20	30	.13	<10	61	<10	12	113
15 -	L 32 N 49+25E	5	<.2	1.07	5	4	55	20	.37	<1	12	17	24	1.90	.14	<10	.53	227	<1	.01	6	460	14	10	<20	24	.11	<10	50	<10	11	44
16 -	L 32 N 45E	<5	<.2	.90	<5	4	40	5	.37	<1	11	18	24	1.81	.15	<10	.51	195	<1	.01	5	300	14	<5	<20	26	.11	<10	47	<10	11	24
17 -	L 32 N 44+75E	<5	<.2	1.83	<5	8	130	10	.37	<1	16	10	12	2.53	.08	<10	.54	357	<1	.01	8	1640	30	10	<20	23	.15	<10	64	<10	12	131
18 -	L 32 N 44+50E	<5	<.2	1.99	<5	8	180	10	.55	<1	23	14	18	3.32	.09	<10	.99	974	<1	.01	14	1010	28	10	<20	33	.17	<10	91	20	14	211
19 -	BL 50 E 39N	<5	<.2	1.19	<5	2	75	10	.40	<1	12	20	13	2.06	.10	<10	.51	310	<1	.01	10	390	12	10	<20	26	.13	<10	50	<10	11	69
20 -	L 39 N 49+75E	<5	<.2	1.31	<5	6	130	10	.37	<1	12	13	17	1.94	.07	<10	.41	327	<1	.01	8	870	22	5	<20	26	.13	<10	50	10	11	107

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
21 -	L 39 N 49+50E	<5	<.2	2.60	5	8	120	5	.71	<1	23	42	157	4.20	.22	10	.98	633	1	.01	26	480	38	10	<20	45	.22	<10	111	20	32	87
22 -	L 39 N 49+25E	<5	<.2	1.71	<5	4	105	10	.48	<1	17	34	41	2.85	.17	<10	.66	383	<1	.01	13	540	24	5	<20	32	.17	<10	66	<10	15	85
23 -	L 39 N 49E	5	<.2	1.86	<5	8	180	10	.44	<1	16	26	22	2.62	.14	<10	.52	343	<1	.01	14	1080	28	5	<20	31	.14	<10	57	<10	12	125
24 -	L 39 N 48+75E	<5	<.2	1.69	<5	10	150	15	.52	<1	21	34	29	3.20	.18	<10	.71	758	<1	.01	17	1180	24	5	<20	40	.17	<10	76	<10	15	137
25 -	L 39 N 48+50E	<5	<.2	1.80	<5	8	100	10	.55	<1	20	45	42	3.17	.18	<10	.77	427	<1	.01	20	600	24	10	<20	37	.19	<10	77	<10	17	76
26 -	L 39 N 48+25E	<5	<.2	1.62	<5	8	110	10	.46	<1	17	33	16	2.73	.12	<10	.64	498	<1	.01	14	700	26	5	<20	31	.18	<10	68	<10	15	93
27 -	L 39 N 48E	<5	<.2	2.11	<5	10	130	10	.58	<1	18	37	26	3.20	.24	<10	.73	531	<1	.02	16	340	30	5	<20	39	.19	<10	75	<10	18	96
28 -	L 39 N 47+75E	<5	<.2	1.43	<5	8	125	5	.32	<1	13	5	9	2.06	.07	<10	.27	347	<1	.01	3	1850	26	5	<20	25	.14	<10	50	<10	11	99
29 -	L 39 N 47+50E	<5	<.2	3.80	15	6	165	10	.30	<1	17	8	42	3.30	.07	<10	.69	369	<1	.01	10	3650	52	10	<20	25	.17	<10	85	<10	18	143
30 -	L 39 N 47+25E	5	<.2	1.63	5	2	115	5	.37	<1	13	17	23	2.37	.05	<10	.53	292	<1	.01	7	780	8	5	<20	25	.13	<10	58	<10	11	75
31 -	L 39 N 47E	5	<.2	1.25	10	6	75	15	.30	<1	12	14	23	1.83	.05	<10	.48	257	1	.01	5	470	18	<5	<20	32	.10	20	46	<10	8	78
32 -	L 39 N 46+75E	<5	<.2	1.11	<5	6	55	10	.25	<1	11	12	22	1.55	.03	<10	.43	232	3	<.01	11	430	20	25	<20	7	.09	<10	39	40	7	80
33 -	L 39 N 46+50E	<5	<.2	1.79	<5	8	185	10	.25	<1	16	12	14	2.47	.04	<10	.39	765	<1	.01	8	3260	42	5	<20	20	.14	<10	58	170	11	158
34 -	L 39 N 46+25E	<5	<.2	1.75	<5	8	80	10	.54	<1	20	58	38	3.05	.09	<10	.84	474	<1	.01	26	620	16	5	<20	39	.18	<10	80	<10	13	86
35 -	L 39 N 46E	<5	<.2	1.67	<5	4	60	5	.54	<1	13	35	28	2.23	.07	<10	.40	153	<1	.01	20	170	18	<5	<20	38	.13	<10	53	<10	9	39
36 -	L 39 N 45+50E	<5	<.2	2.58	10	4	100	5	.34	<1	15	43	31	2.92	.06	<10	.60	374	<1	.01	21	1230	26	5	<20	30	.16	<10	73	<10	9	130
37 -	L 39 N 45+25E	<5	<.2	1.67	5	4	95	5	.30	<1	12	20	33	2.37	.05	<10	.38	580	<1	.01	10	1560	18	5	<20	24	.14	<10	62	<10	8	133
38 -	L 39 N 45E	<5	<.2	2.09	5	4	170	5	.45	<1	15	35	41	2.49	.07	<10	.51	970	<1	.01	18	690	20	5	<20	31	.15	<10	64	<10	10	133
39 -	L 39 N 44+75E	<5	<.2	.76	<5	8	70	5	.17	<1	7	10	6	1.28	.03	<10	.13	317	<1	.01	5	770	12	<5	<20	16	.10	<10	37	<10	5	58
40 -	L 39 N 44+50E	<5	<.2	1.24	5	8	95	5	.42	<1	13	37	17	2.12	.04	<10	.44	458	<1	.01	14	780	12	5	<20	34	.14	<10	60	<10	9	81
41 -	L 39 N 44+25E	<5	<.2	1.14	5	4	125	5	.33	<1	11	28	11	1.75	.04	<10	.30	567	<1	.01	10	1300	14	<5	<20	28	.12	<10	57	<10	7	104
42 -	L 39 N 44E	<5	<.2	1.33	<5	8	35	5	.36	<1	11	33	22	2.11	.04	<10	.40	152	<1	.01	13	620	14	5	<20	27	.14	<10	59	<10	9	34
43 -	L 39 N 43+75E	<5	<.2	2.26	10	8	110	5	.68	<1	18	76	32	2.77	.10	<10	.79	328	<1	.01	28	820	22	5	<20	47	.17	<10	63	<10	11	91
44 -	L 39 N 43+50E	<5	<.2	1.73	5	8	160	5	.42	<1	16	42	23	2.48	.08	<10	.51	768	<1	.01	20	1500	16	5	<20	33	.14	<10	60	<10	9	148
45 -	L 39 N 43+25E	<5	<.2	2.25	10	8	110	5	.48	<1	17	43	44	2.93	.11	<10	.76	289	<1	.01	27	1680	20	5	<20	38	.15	<10	72	<10	10	98

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
46 -	L 39 N 43E	<5	<.2	.85	<5	8	210	5	.62	<1	9	23	13	1.59	.07	<10	.23	491	<1	.01	9	1150	10	<5	<20	48	.11	<10	43	<10	7	73
47 -	L 39 N 42+75E	<5	<.2	1.21	5	6	90	5	.31	<1	11	18	13	1.82	.06	<10	.34	411	<1	.01	10	1030	14	<5	<20	27	.11	<10	53	<10	7	111
48 -	L 39 N 42+50E	<5	<.2	1.55	<5	4	80	5	.53	<1	15	39	18	2.30	.11	<10	.59	274	<1	.01	18	600	16	5	<20	40	.15	<10	58	<10	10	71
49 -	L 39 N 42+25E	<5	<.2	2.43	10	8	135	10	.76	<1	19	56	55	3.38	.18	<10	.77	394	<1	.01	27	320	22	5	<20	54	.19	<10	77	<10	14	86
50 -	L 39 N 42E	<5	<.2	2.57	<5	8	155	10	.67	<1	28	18	19	3.60	.09	<10	1.51	1145	<1	.01	12	1120	22	10	<20	40	.23	<10	117	<10	14	176
QC/DATA:																																
Repeat #:																																
10 -	L 32 N 46+75E	-	<.2	2.30	30	10	100	20	.67	<1	26	69	32	4.03	.10	<10	1.22	325	<1	.01	21	750	28	15	<20	49	.23	<10	115	<10	19	97
35 -	L 39 N 46E	-	<.2	1.70	<5	8	60	5	.54	<1	13	34	28	2.28	.07	<10	.42	167	<1	.01	20	180	18	5	<20	38	.14	<10	54	<10	9	42
STANDARD 1991:																																
			1.4	2.46	<5	12	165	10	2.28	<1	26	60	85	3.67	.48	<10	1.31	896	<1	.02	24	790	22	15	<20	85	.16	<10	103	<10	19	78

NOTE: < = LESS THAN
> = GREATER THAN
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OCTOBER 15, 1993

PIONEER METALS CORPORATION ETK 93-411
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

30 SOIL SAMPLES RECEIVED OCTOBER 6, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 12

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93 L30N 51 E	<5	<.2	1.68	<5	2	90	5	.59	<1	18	64	24	2.71	.08	<10	.89	255	<1	.01	27	800	24	5	<20	41	.13	<10	63	<10	11	62
2	- HAWK 93 L30N 50-25 E	<5	<.2	1.82	<5	4	60	10	.49	<1	20	60	46	2.91	.11	<10	.94	420	<1	.01	27	570	26	5	<20	31	.16	<10	72	<10	14	96
3	- HAWK 93 L30N 50-50 E	<5	.4	2.61	10	4	130	5	.90	<1	23	86	98	3.75	.30	10	1.18	818	<1	.01	43	750	34	10	<20	50	.14	<10	83	<10	26	71
4	- HAWK 93 L30N 50-75 E	<5	<.2	1.64	10	4	90	5	.52	<1	21	65	36	2.77	.19	<10	.92	363	<1	.01	28	800	24	5	<20	32	.15	<10	66	<10	15	68
5	- HAWK 93 L32N 51 E	<5	<.2	1.79	10	4	105	5	.71	<1	20	57	32	2.65	.08	<10	.83	261	<1	.01	23	140	24	5	<20	85	.15	<10	72	<10	17	31
6	- HAWK 93 L32N 50-25 E	<5	<.2	2.26	<5	2	110	10	.37	<1	19	57	27	2.79	.08	<10	.79	407	<1	.01	24	1130	32	5	<20	26	.15	<10	63	<10	12	88
7	- HAWK 93 L32N 50-50 E	<5	<.2	1.76	<5	2	90	10	.40	<1	18	58	24	2.60	.09	<10	.76	322	<1	.01	22	560	26	5	<20	26	.16	<10	63	<10	13	67
8	- HAWK 93 L32N 50-75 E	<5	<.2	1.85	<5	2	155	10	.35	<1	17	41	12	2.52	.08	<10	.47	823	<1	.01	15	1440	30	5	<20	28	.13	<10	55	<10	10	144
9	- HAWK 93 L30 50N 51E	<5	<.2	1.17	<5	2	95	5	.16	<1	9	19	6	1.72	.04	<10	.20	788	<1	<.01	7	1270	20	<5	<20	15	.09	<10	38	<10	7	62
10	- HAWK 93 L30 50-25 E	<5	<.2	1.87	5	4	70	10	.59	<1	23	65	45	3.20	.11	<10	1.06	377	<1	.01	26	870	24	5	<20	39	.17	<10	83	<10	16	76
11	- HAWK 93 L30 50-50 E	<5	<.2	3.38	5	8	225	10	.35	<1	22	86	128	4.03	.30	10	.80	417	4	.01	46	690	60	<5	<20	26	.12	<10	88	130	22	90
12	- HAWK 93 L30 50-75 E	<5	<.2	1.34	<5	<2	25	<5	.33	<1	10	35	19	2.01	.04	<10	.54	219	<1	<.01	19	660	2	5	<20	19	.11	<10	46	<10	12	60
13	- HAWK 93 L30 50N 49E	<5	<.2	2.08	5	2	110	10	.38	<1	18	52	24	2.66	.09	<10	.80	330	<1	.01	26	650	30	5	<20	26	.14	<10	65	<10	12	81
14	- HAWK 93 L30 49-25 E	<5	<.2	1.90	<5	2	80	5	.37	<1	19	63	25	2.80	.12	<10	.87	290	<1	.01	30	790	26	5	<20	23	.14	<10	65	<10	12	61
15	- HAWK 93 L30 49-50 E	<5	<.2	1.80	10	2	85	10	.31	<1	17	46	19	2.42	.10	<10	.59	273	<1	<.01	21	950	26	<5	<20	25	.13	<10	53	<10	11	79
16	- HAWK 93 L30N 49-75 E	<5	<.2	1.65	<5	2	85	5	.42	<1	17	44	22	2.52	.11	<10	.68	354	<1	.01	21	890	24	5	<20	25	.14	<10	60	<10	13	77
17	- HAWK 93 L31N 51 E	<5	<.2	1.63	10	2	85	5	.21	<1	9	30	13	1.92	.07	<10	.35	309	<1	<.01	12	1000	28	5	<20	13	.11	<10	46	<10	9	62
18	- HAWK 93 L31N 50-25 E	<5	<.2	2.13	<5	4	110	10	1.09	<1	14	48	38	2.29	.19	<10	.78	393	<1	.01	21	350	30	5	<20	61	.13	<10	50	<10	13	99
19	- HAWK 93 L31N 50-50 E	<5	<.2	2.18	<5	4	95	5	.53	<1	22	57	52	3.14	.10	<10	.83	396	1	.01	23	1470	30	5	<20	36	.15	<10	69	<10	13	152
20	- HAWK 93 L31N 50-75 E	<5	<.2	.70	<5	2	60	5	.12	<1	6	11	6	1.18	.03	<10	.11	800	<1	<.01	3	930	14	<5	<20	12	.07	<10	28	<10	6	48

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
21	HAWK 93 L31N 49 E	<5	<.2	1.81	5	2	90	10	.35	<1	15	43	19	2.38	.09	<10	.61	289	<1	.01	23	680	26	5	<20	24	.13	<10	58	<10	11	69
22	HAWK 93 L31N 49-25 E	<5	<.2	1.54	5	2	165	5	.42	<1	15	35	17	2.16	.08	<10	.54	1502	<1	.01	15	1290	22	<5	<20	30	.12	<10	56	<10	10	92
23	HAWK 93 L31N 49-50 E	<5	<.2	.80	<5	2	40	10	.32	<1	19	2	3	2.04	.01	<10	.97	1110	<1	<.01	1	330	12	5	<20	14	.14	<10	92	<10	11	70
24	HAWK 93 L31N 49-75 E	<5	<.2	1.37	5	2	135	10	.35	<1	16	49	26	2.26	.09	<10	.69	793	1	.01	17	1240	26	5	<20	18	.13	<10	57	<10	10	81
25	HAWK 93BL50E 30-25 E	<5	<.2	1.62	<5	4	70	10	.51	<1	20	59	35	3.02	.22	<10	.96	387	<1	.01	23	670	22	5	<20	31	.17	<10	79	<10	15	53
26	HAWK 93BL50E 30-50 N	<5	<.2	1.97	10	4	65	10	1.31	<1	28	173	53	3.74	.15	<10	1.84	432	<1	.01	43	1620	22	10	<20	81	.15	<10	96	<10	13	67
27	HAWK 93 L30N 30-75 N	<5	<.2	1.68	10	2	65	10	.34	<1	16	46	17	2.56	.07	<10	.58	206	<1	.01	18	950	26	5	<20	22	.13	<10	59	<10	11	106
28	HAWK 93 L30N 31-25 N	<5	<.2	2.01	10	4	95	5	.65	<1	18	55	59	2.79	.17	<10	.82	496	<1	.01	27	470	28	5	<20	37	.14	<10	69	<10	16	60
29	HAWK 93 L30N 31-50 N	<5	<.2	.31	10	6	65	<5	3.35	<1	3	7	36	.52	.03	<10	.30	637	<1	.01	8	410	4	5	<20	171	.01	<10	11	<10	3	9
30	HAWK 93 L30N 31-75 N	<5	<.2	.91	5	<2	<5	<5	.26	<1	6	17	15	1.45	<.01	<10	.24	155	<1	<.01	6	140	<2	<5	<20	<1	.08	<10	42	<10	4	31
QC/DATA:																																
Repeat #:																																
5	HAWK 93 L32N 51 E		<.2	1.71	5	2	100	5	.70	<1	19	54	31	2.53	.08	<10	.79	250	<1	.01	22	130	24	5	<20	83	.14	<10	69	<10	16	29
STANDARD 1991:		-	1.2	2.23	65	4	120	5	1.73	<1	20	65	76	3.69	.36	<10	.99	672	<1	.01	23	610	24	10	<20	61	.12	<10	75	<10	14	73

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ATTENTION: DAVID DUNN

NOVEMBER 24, 1993

PAGE 1

52 SOIL SAMPLES RECEIVED NOVEMBER 14, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 18

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	H L26N 48+ 50E	<5	<.2	3.30	<5	6	115	15	.43	<1	20	57	44	3.62	.11	<10	.87	421	<1	.01	28	840	<2	15	<20	36	.20	<10	101	<10	13	95
2 -	H L26N 48+ 75E	<5	<.2	1.99	<5	8	95	<5	.60	<1	23	75	93	3.57	.14	<10	1.08	316	<1	.01	35	920	<2	15	<20	38	.18	<10	95	<10	12	62
3 -	H L26N 49 E	<5	<.2	1.79	<5	6	130	5	.64	<1	18	65	46	3.17	.12	<10	.80	324	<1	.02	24	370	<2	15	<20	42	.18	<10	83	<10	14	49
4 -	H L26N 49+ 25E	<5	<.2	1.42	<5	6	150	10	.46	<1	15	45	16	2.38	.06	<10	.46	378	<1	.01	18	1550	<2	10	<20	30	.15	<10	60	<10	10	89
5 -	H L26N 49+ 50E	<5	<.2	2.47	<5	6	75	10	.21	<1	12	17	10	2.83	.04	<10	.46	295	<1	.01	7	2970	4	10	<20	18	.17	<10	73	<10	11	101
6 -	H L26N 49+ 75E	<5	<.2	2.08	<5	6	90	5	.60	<1	24	85	87	3.60	.13	<10	1.08	434	<1	.02	44	380	<2	15	<20	39	.21	<10	97	<10	15	88
7 -	H L26N 50+ 25E	<5	<.2	2.65	<5	6	160	<5	.63	<1	27	104	162	4.15	.07	<10	1.49	379	<1	.01	39	800	<2	20	<20	39	.24	<10	118	<10	16	64
8 -	H L26N 50+ 50E	<5	<.2	4.04	<5	6	180	5	.51	<1	23	83	102	4.61	.10	<10	1.34	445	<1	.01	35	3770	<2	20	<20	35	.18	<10	118	<10	12	117
9 -	H L26N 50+ 75E	<5	<.2	2.14	<5	6	200	5	.50	<1	22	77	50	3.55	.10	<10	.95	423	<1	.01	31	1640	<2	20	<20	33	.18	<10	87	<10	12	91
10 -	H L26N 51 E	<5	<.2	1.57	<5	6	140	10	.54	<1	20	62	31	2.89	.14	<10	.83	272	<1	.01	26	810	<2	15	<20	32	.17	<10	74	<10	12	51
11 -	H L26N 51+ 25E	<5	<.2	2.92	<5	6	355	<5	1.04	<1	16	67	100	3.59	.21	<10	.74	341	<1	.02	37	610	<2	15	<20	56	.16	<10	74	<10	20	55
12 -	H L26N 51+ 50E	<5	<.2	1.83	<5	6	135	10	.64	<1	16	64	23	2.86	.12	<10	.76	248	<1	.02	27	350	<2	10	<20	39	.18	<10	65	<10	13	76
13 -	L27N 48+ 50E	<5	<.2	1.68	<5	6	60	5	.35	<1	22	5	27	2.55	.02	<10	1.25	795	<1	.01	6	1030	<2	15	<20	26	.18	<10	86	<10	11	124
14 -	L27N 48+ 75E	<5	<.2	1.97	<5	6	180	10	.56	<1	18	58	28	2.77	.11	<10	.76	344	<1	.01	28	1570	<2	10	<20	38	.17	<10	63	<10	10	150
15 -	L27N 49 E	<5	<.2	1.64	<5	6	110	5	.45	<1	17	64	19	2.53	.09	<10	.66	354	<1	.01	24	1170	<2	10	<20	35	.16	<10	64	<10	10	91
16 -	L27N 49+ 25E	<5	<.2	3.06	<5	6	200	10	.85	<1	25	84	73	4.60	.20	<10	1.06	409	<1	.02	43	580	<2	15	<20	46	.20	<10	106	<10	15	102
17 -	L27N 49+ 50E	<5	<.2	2.11	<5	6	130	5	.59	<1	19	68	45	3.27	.18	<10	.80	364	<1	.02	32	330	<2	15	<20	38	.18	<10	79	<10	14	74
18 -	L27N 49+ 75E	<5	<.2	1.57	<5	6	85	5	.58	<1	19	67	35	2.91	.13	<10	.93	313	<1	.02	27	480	<2	15	<20	35	.19	<10	78	<10	14	54
19 -	L27N 50+ 25E	<5	<.2	1.75	<5	6	110	15	.54	<1	19	67	26	2.86	.14	<10	.84	317	<1	.01	28	740	<2	15	<20	31	.18	<10	72	<10	12	69
20 -	L27N 50+ 50E	<5	<.2	2.17	<5	6	90	10	.27	<1	16	22	31	2.95	.03	<10	.89	653	<1	.01	9	1310	<2	15	<20	22	.20	<10	87	10	11	139
21 -	L27N 50+ 75E	<5	<.2	2.96	<5	4	535	5	.30	<1	15	24	14	3.24	.09	<10	.57	934	<1	.01	19	1820	<2	10	<20	20	.06	<10	76	<10	4	206
22 -	L27N 51 E	<5	<.2	1.99	<5	6	205	5	.32	<1	15	42	18	2.41	.08	<10	.51	488	<1	.01	25	1000	<2	10	<20	26	.15	<10	55	<10	10	135
23 -	L27N 51+ 25E	<5	<.2	2.10	<5	6	245	10	.47	<1	18	55	20	2.77	.12	<10	.67	453	<1	.01	30	1770	<2	10	<20	37	.16	<10	60	<10	10	154
24 -	L27N 51+ 50E	<5	<.2	1.77	<5	6	115	5	.40	<1	10	48	23	2.14	.12	<10	.52	167	<1	.01	20	550	2	10	<20	24	.17	<10	54	<10	13	40
25 -	L28N 48+ 50E	<5	<.2	2.47	<5	6	125	10	.43	<1	20	50	35	3.15	.10	<10	.81	522	<1	.01	25	970	<2	10	<20	32	.17	<10	84	<10	11	101

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
26 -	L28N 48+ 75E	<5	<.2	2.68	<5	6	120	5	.60	<1	22	63	63	3.62	.14	<10	.86	494	<1	.02	31	700	<2	15	<20	35	.19	<10	95	<10	17	72
27 -	L28N 49 E	<5	<.2	1.67	<5	6	215	10	.35	<1	15	43	16	2.42	.10	<10	.45	496	<1	.01	24	1550	<2	10	<20	27	.14	<10	58	<10	9	155
28 -	L28N 49+ 25E	<5	<.2	3.18	<5	8	210	5	.74	<1	24	86	98	4.67	.30	<10	1.03	592	<1	.02	46	400	<2	15	<20	45	.20	<10	101	<10	18	85
29 -	L28N 49+ 50E	<5	<.2	2.06	<5	8	110	10	.71	<1	24	82	43	3.63	.18	<10	1.12	378	<1	.02	35	510	<2	15	<20	48	.20	<10	95	10	16	61
30 -	L28N 49+ 75E	<5	<.2	2.30	<5	6	120	10	.71	<1	23	86	55	3.98	.18	<10	1.13	415	<1	.02	35	510	<2	20	<20	43	.21	<10	101	<10	19	80
31 -	L28N 50+ 25E	<5	<.2	1.78	<5	6	85	5	.49	<1	18	69	32	2.84	.13	<10	.85	276	<1	.01	33	400	<2	10	<20	30	.18	<10	73	<10	13	62
32 -	L28N 50+ 50E	<5	<.2	2.08	<5	6	150	10	.54	<1	21	93	34	3.06	.18	<10	.96	288	<1	.01	35	1310	<2	15	<20	35	.19	<10	71	<10	12	80
33 -	L28N 50+ 75E	<5	<.2	1.87	<5	6	105	10	.58	<1	22	78	32	3.26	.17	<10	1.09	341	<1	.01	30	670	<2	20	<20	34	.21	<10	88	<10	14	59
34 -	L28N 51 E	<5	<.2	.55	<5	4	105	5	.20	<1	5	6	3	1.45	.03	<10	.07	292	<1	.01	2	680	6	<5	<20	16	.11	<10	39	<10	6	36
35 -	L28N 51+ 25E	<5	<.2	3.42	<5	6	195	10	.49	<1	21	72	44	3.99	.12	<10	.98	529	<1	.01	32	1220	<2	20	<20	34	.17	<10	99	<10	10	112
36 -	L28N 51+ 50E	<5	<.2	2.96	<5	4	205	10	.23	<1	19	55	25	3.80	.08	<10	.61	926	<1	.01	27	1190	<2	10	<20	22	.20	<10	95	<10	12	111
37 -	L29N 48+ 50E	<5	<.2	2.36	<5	6	145	10	.31	<1	17	29	25	2.83	.09	<10	.71	329	<1	.01	18	1460	<2	10	<20	34	.16	<10	79	<10	10	117
38 -	L29N 48+ 75E	<5	<.2	1.82	<5	6	85	5	.64	<1	20	57	46	3.27	.17	<10	.83	324	<1	.02	26	750	<2	15	<20	41	.19	<10	93	<10	13	47
39 -	L29N 49 E	<5	<.2	2.80	<5	6	165	20	.46	<1	16	46	20	3.30	.08	<10	.58	252	<1	.01	21	3800	12	15	<20	51	.15	<10	70	10	13	127
40 -	L29N 49+ 25E	<5	<.2	2.24	<5	6	125	15	.34	<1	17	50	31	2.90	.10	10	.68	332	<1	.01	29	1330	8	15	<20	26	.14	<10	70	10	13	88
41 -	L29N 49+ 50E	<5	<.2	1.57	<5	6	105	15	.47	<1	16	57	33	2.57	.11	10	.73	310	<1	.01	27	580	4	15	<20	34	.15	<10	66	10	15	63
42 -	L29N 49+ 75E	<5	<.2	1.85	<5	6	170	10	.32	<1	17	45	16	2.77	.09	<10	.66	379	<1	.01	24	1470	8	15	<20	25	.14	<10	63	20	11	107
43 -	L29N 50+ 25E	<5	<.2	2.20	<5	6	130	15	.44	<1	20	65	38	3.22	.10	10	.86	312	<1	.01	35	1110	6	15	<20	32	.16	<10	77	<10	14	99
44 -	L29N 50+ 50E	<5	<.2	1.43	<5	6	90	15	.51	<1	16	58	33	2.59	.12	10	.82	301	<1	.01	26	430	6	20	<20	31	.16	<10	66	10	16	57
45 -	L29N 50+ 75E	<5	<.2	1.68	<5	6	85	10	.34	<1	13	45	39	2.43	.12	<10	.60	178	<1	.01	27	250	8	15	<20	22	.14	<10	54	10	13	52
46 -	L29N 51 E	<5	<.2	1.53	<5	6	115	15	.37	<1	17	50	24	2.41	.09	<10	.65	366	<1	.01	26	580	6	15	<20	26	.16	<10	61	10	14	71
47 -	L29N 51+ 25E	<5	<.2	1.49	<5	6	115	10	.36	<1	16	49	23	2.33	.09	<10	.65	340	<1	.01	24	560	6	10	<20	26	.15	<10	59	<10	13	67
48 -	L29N 51+ 50E	<5	<.2	1.27	<5	4	90	10	.27	<1	13	31	19	1.77	.07	<10	.42	498	<1	.01	15	400	6	10	<20	22	.12	<10	47	10	11	69
49 -	BL50E 26 N	<5	<.2	1.36	<5	6	130	10	.30	<1	13	43	22	2.26	.08	<10	.54	333	<1	.01	19	810	8	10	<20	21	.13	<10	58	10	12	52
50 -	BL50E 27 N	<5	<.2	1.66	<5	6	120	10	.39	<1	16	53	25	2.49	.11	<10	.64	369	<1	.01	31	670	6	15	<20	25	.14	<10	60	10	12	113

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
51 -	BL50E 28 N	<5	<.2	2.00	<5	6	130	20	.42	<1	23	71	24	3.39	.24	<10	1.04	293	<1	.01	37	560	4	20	<20	26	.18	<10	94	10	15	96
52 -	BL50E 29 N	<5	<.2	2.66	<5	6	110	10	.38	<1	21	54	42	3.30	.08	<10	1.09	405	<1	.01	29	1430	8	15	<20	27	.15	<10	89	<10	13	103
QC/DATA:																																
Repeat #:																																
1 -	H L26N 48+ 50E		<.2	3.24	<5	6	115	5	.42	<1	20	55	43	3.58	.11	<10	.84	418	<1	.01	27	800	<2	15	<20	39	.20	<10	99	<10	12	94
STANDARD 1991:			1.2	2.19	65	8	180	5	2.06	<1	23	64	87	4.45	.43	<10	1.15	741	<1	.02	28	750	16	20	<20	68	.14	<10	94	10	14	76

NOTE: < = LESS THAN
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PIONEER METALS CORPORATION ETK 93-481
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

DECEMBER 2, 1993

6 SOIL SAMPLES RECEIVED NOVEMBER 19, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 19

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- S L26N 24E	5	<.2	2.14	<5	6	145	20	.69	<1	20	76	35	3.81	.11	<10	1.13	412	<1	.02	37	930	12	20	<20	43	.21	<10	100	<10	17	116
2	- S L26N 24 + 25E	5	<.2	2.25	<5	6	135	15	.48	<1	21	60	38	3.33	.10	<10	.81	436	<1	.01	41	760	14	15	<20	34	.17	<10	77	<10	14	85
3	- S L26N 24 + 25E A	5	<.2	2.21	<5	8	120	15	.49	<1	20	61	37	3.33	.11	<10	.85	415	<1	.01	43	830	12	15	<20	35	.18	<10	77	<10	15	79
4	- S L27N 27 + 50E	5	.2	5.55	15	6	400	<5	1.10	<1	36	119	466	6.67	.44	<10	1.31	874	1	.02	110	460	28	25	<20	78	.21	<10	135	<10	20	128
QC/DATA:																																
STANDARD 1991:			.8	2.04	75	8	175	10	1.98	2	24	77	94	4.32	.42	<10	1.16	747	<1	.02	25	750	24	25	<20	65	.14	<10	88	<10	9	85

NOTE: < = LESS THAN
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PIONEER METALS CORPORATION ETK 93-321
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: D. DUNN

SEPTEMBER 10, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

19 ROCK SAMPLES RECEIVED AUGUST 24, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 06

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93-DR 1	15	<.2	1.68	55	4	60	10	5.29	<1	29	44	12	4.57	.07	<10	1.50	1321	1	.03	9	2390	6	10	<20	287	.16	<10	181	<10	16	73
2	- HAWK 93-DR 2	15	<.2	3.27	40	12	60	<5	5.24	<1	19	35	115	3.88	.08	<10	1.07	745	<1	.02	23	1220	20	10	<20	112	.13	<10	184	<10	13	51
3	- HAWK 93-DR 3	10	<.2	1.95	125	6	120	<5	2.88	<1	24	115	201	3.56	.47	<10	1.43	607	1	.05	19	1250	12	10	<20	196	.27	<10	177	<10	21	39
4	- HAWK 93-DR 4	255	1.2	.24	5	6	15	<5	.40	<1	3	190	1400	.57	.02	<10	.12	147	10	<.01	2	160	2	<5	<20	27	.02	<10	20	<10	1	7
5	- HAWK 93-DR 5	35	<.2	1.23	105	4	50	<5	1.58	<1	22	32	166	4.25	.10	<10	1.02	616	1	.03	4	2100	8	10	<20	100	.24	<10	167	<10	17	39
6	- HAWK 93-DR 6	405	.4	1.53	80	6	55	<5	1.99	<1	20	44	2204	3.49	.14	<10	1.39	661	2	.08	3	1820	10	10	<20	74	.19	<10	217	<10	16	33
7	- HAWK 93-DR 7	325	.6	1.60	80	8	75	<5	1.70	<1	34	119	3245	5.77	.50	<10	2.00	602	3	.09	19	1270	6	15	<20	111	.22	<10	197	<10	14	45
8	- HAWK 93-DR 8	5	<.2	2.27	<5	8	120	<5	8.96	<1	31	256	204	4.40	.25	<10	4.07	1216	<1	.01	60	930	6	15	<20	189	.02	<10	120	<10	6	50
9	- HAWK 93-DR 9	<5	<.2	1.33	80	8	40	<5	2.39	<1	8	106	321	1.30	.05	<10	.49	481	2	.01	11	1060	10	5	<20	400	.15	<10	88	<10	10	14
10	- HAWK 93-DR 10	<5	<.2	1.49	60	4	45	<5	2.13	<1	21	166	191	3.02	.56	<10	1.68	541	<1	.06	35	1510	8	5	<20	163	.15	<10	116	<10	10	44
11	- HAWK 93-DR 11	5	<.2	.77	<5	6	100	<5	6.74	<1	34	17	80	6.16	.49	<10	2.73	1510	<1	<.01	13	2240	2	25	<20	212	<.01	<10	75	<10	4	61
12	- HAWK 93-DR 12	5	<.2	1.61	90	4	145	<5	2.05	<1	29	163	145	3.44	.36	<10	1.68	595	<1	.05	52	1250	10	10	<20	80	.20	<10	103	<10	15	43
13	- HAWK 93-DR 13	<5	<.2	1.57	105	4	50	<5	1.79	<1	36	59	310	4.66	.21	<10	1.47	484	1	.05	22	1260	10	10	<20	112	.25	<10	136	<10	18	40
14	- HAWK 93-DR 14	<5	<.2	1.72	75	4	175	5	5.02	<1	29	87	67	4.46	.12	<10	2.10	873	<1	.03	29	930	6	15	<20	108	.24	<10	166	<10	19	43
15	- HAWK 93-DR 15	10	<.2	2.30	45	2	90	5	10.80	<1	23	139	73	3.67	.18	<10	2.60	1220	<1	<.01	46	340	6	15	<20	148	.13	<10	118	<10	11	40
16	- HAWK 93-DR 16	215	6.6	2.55	110	4	90	<5	2.14	<1	59	172	6959	5.52	.42	<10	2.81	849	4	.02	54	640	12	15	<20	40	.24	<10	143	<10	16	78
17	- HAWK 93-DR 17	15	<.2	3.29	120	4	245	<5	3.18	<1	31	235	421	5.32	.69	<10	3.53	1085	3	.02	65	670	14	20	<20	61	.28	<10	172	<10	19	77
18	- HAWK 93-DR 18	5	<.2	1.11	<5	4	175	<5	.49	<1	6	85	100	2.07	.16	<10	.62	562	4	.02	3	650	12	5	<20	79	.01	<10	35	<10	4	39
19	- HAWK 93-DR 19	<5	<.2	1.71	65	4	55	5	2.30	<1	20	53	52	3.73	.18	<10	1.21	565	1	.08	6	2400	10	5	<20	220	.19	<10	149	<10	16	35

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PIONEER METALS CORPORATION ETK 93-321 ECO-TECH LABORATORIES LTD. SEPTEMBER 10, 1993

QC/DATA:	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
Repeat #:																															
15 - HAWK 93-DR 15		<.2	2.26	55	2	90	10	10.61	<1	23	136	78	3.61	.17	<10	2.57	1199	<1	<.01	45	350	8	15	<20	148	.12	<10	116	<10	10	39
STANDARD 1991:		1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74

NOTE: < = LESS THAN

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PIONEER METALS CORPORATION ETK 93-472
1770-401 W. GEORGIA STREET
VANCOUVER, B.C.
V6B 5A1

ATTENTION: DAVID DUNN

NOVEMBER 23, 1993

2 ROCK SAMPLES RECEIVED NOVEMBER 14, 1993
PROJECT #: CANIM LAKE
SHIPMENT #: 18

VALUES IN PPM UNLESS OTHERWISE REPORTED

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93 CR 1	5	2.4	.83	<5	4	125	<5	1.68	<1	6	150	1977	1.35	.06	<10	.26	717	10	.03	8	890	56	5	140	144	.07	<10	61	10	8	27
2	- HAWK 93 CR 2	5	<.2	.78	<5	6	350	10	1.31	<1	11	73	65	2.76	.12	<10	.47	404	4	.03	3	2240	252	15	<20	94	.17	<10	109	<10	18	34
QC/DATA:																																
Repeat #:																																
1	- HAWK 93 CR 1		2.2	.75	<5	6	120	<5	1.55	<1	6	143	1896	1.22	.06	<10	.24	673	10	.02	8	860	54	5	120	131	.06	<10	55	<10	7	26
STANDARD 1991:																																

NOTE: < = LESS THAN
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42E 43E 44E 45E 46E 47E 48E 49E BL 50E (015°)

L41N

L40N

L39N

L38N

L37N

THIRD LAKE

L36N

L35N

L34N

L33N

MIDDLE LAKE

L32N

L31N

trail

L30N

L29N

L28N

L27N

L26N

51E

50E

49E

N

PIONEER METALS CORP.
HAWK CLAIMS | JAN. 1994
Cu/Au SOIL GEOCHEMISTRY
Clinton m.d. NTS. 92P/15W
D. Ridley | FIG. 6
50 0 50 100
1: 2500 meters

Cu(ppm)
Au(ppb)

< : less than